ANNUAL REPORT 2004

A HEART FOR LIFE

medicure

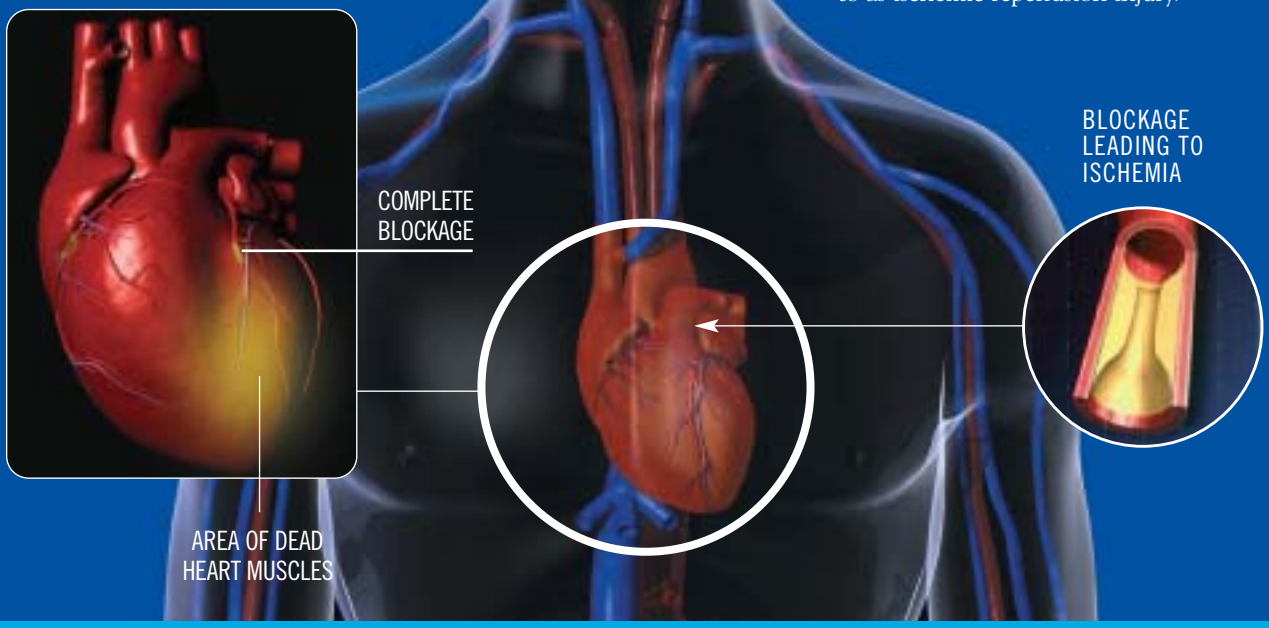
THE CARDIOPROTECTIVE EFFECTS OF MC-1

THE PROBLEM: CARDIOVASCULAR DISEASE

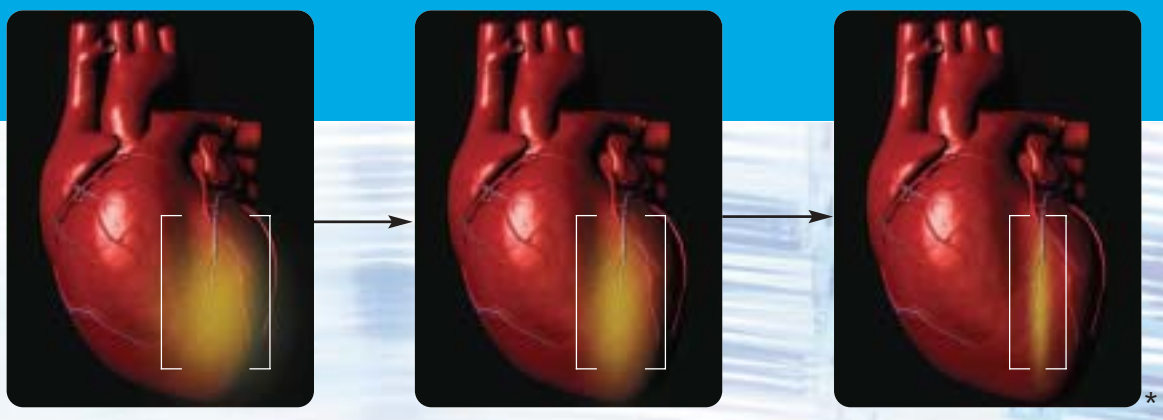
Over 60 million people are affected by cardiovascular disease and stroke in the US alone. Cardiovascular disease is responsible for 40% of all deaths in the US, and is the leading cause of mortality in North America, Europe, and Japan. As our population ages and risk factors such as obesity become more prevalent, the incidence of cardiovascular disease is expected to increase. Newer treatment approaches are necessary to address unmet cardiovascular needs.

THE DISEASE:

Ischemic heart disease is a condition caused by insufficient blood flow to the heart. The decreased blood flow may be due to narrowing of the coronary arteries by cholesterol buildup, or blockage of an artery by a blood clot. This reduces the supply of oxygen and nutrients to the heart muscle, which is essential for proper functioning of the heart. Severe interruption of the blood supply to the heart may result in a heart attack and permanent damage to the heart muscle. Further injury to the heart may be sustained when the blood flow to the heart is resumed, such as occurs during medical procedures like coronary artery bypass graft surgery or angioplasty. This damage is referred to as ischemic reperfusion injury.



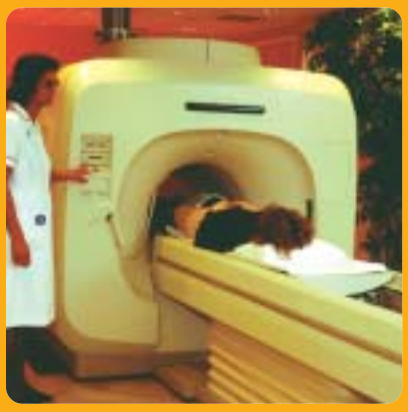
THE SOLUTION: AN INNOVATIVE APPROACH UTILIZING MEDICURE TECHNOLOGY



MC-1 is a cardioprotective drug that is being developed as a treatment to reduce ischemia and ischemic reperfusion injury. The results from the Company's MEND-1 Phase II clinical trial showed that MC-1 reduces ischemic heart damage following angioplasty. The results provide a solid base for larger clinical trials in this and other cardiovascular indications.

• For illustration purposes only.

CORPORATE PROFILE



Medicure is a drug discovery and development company developing effective therapeutics to treat unmet cardiovascular needs. The Company's lead drug, MC-1, is focused on the reduction of heart damage caused by acute cardiovascular syndrome, myocardial infarction and heart procedures such as angioplasty and coronary artery bypass surgery.

Medicure's second drug candidate, MC-4232 is being developed for the treatment of diabetic patients with hypertension. A major risk factor in diabetes is cardiovascular disease. MC-4232, a combination of MC-1 and an ACE Inhibitor, is being developed to treat a number of cardiovascular problems facing these patients.

As MC-1 and MC-4232 continue their advancement toward the market, the Company is developing a pipeline of other cardiovascular and cerebrovascular products.

The underlying structure of MC-1 provides a powerful guiding principle for novel drug and library development by Medicure's Drug Discovery Group.

Medicure is leveraging its established expertise in the areas of medicinal chemistry, cardiovascular physiology, and drug screening to advance cardiovascular drug development initiatives.

CORPORATE VISION STATEMENT

TO BECOME A WORLD LEADER IN THE DISCOVERY AND DEVELOPMENT OF CARDIOVASCULAR DRUGS.

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MESSAGE TO
MEDICURE SHAREHOLDERS

WHEN WE REFLECT BACK ON FISCAL 2004, HISTORY WILL SHOW THAT IT WAS MEDICURE'S STEADFAST COMMITMENT AND DEDICATION TO SUCCESS AND EXCELLENCE THAT PROPELLED OUR PRODUCT DEVELOPMENT INITIATIVES. OUR DRIVE TO POSITION MEDICURE AS A LEADER IN THE DEVELOPMENT AND MARKETING OF DRUGS TO ADDRESS UNMET CARDIOVASCULAR NEEDS IS FIRMLY ON TRACK. OVER THE PAST YEAR, WE HAVE WITNESSED MANY KEY ELEMENTS OF OUR STRATEGY COMING TOGETHER AS WE ADVANCE CLOSER TOWARDS OUR GOAL TO INTRODUCE A PRODUCT TO THE MARKETPLACE.

During fiscal 2004, we generated significant momentum across a number of key areas of our business: We commenced a major Phase II/III clinical trial in the area of Coronary Artery Bypass Graft (CABG) surgery with our lead compound, MC-1; we commenced the clinical development of our second drug candidate, MC-4232; we listed our stock on the American Stock Exchange; we raised approximately CDN$7.6 million in a private placement financing; and, we saw investors exercise 99% of the Company's common share purchase warrants and agents' compensation units for proceeds of approximately $14.6 million.

CLINICAL ADVANCEMENTS

Perhaps our most significant accomplishment of the past year was the commencement of our pivotal Phase II/III MEND-CABG trial, a major study in the area of CABG surgery, which is progressing under the stewardship of Dr. J. C. Tardif at The Montreal Heart Institute in Canada, and Dr. David Kandzari at Duke Clinical Research Institute in the United States.

The MEND-CABG trial is a placebo controlled, double-blinded study of MC-1, designed to evaluate the potential of Medicure's lead drug in reducing damage resulting from CABG procedures. Data from our MEND-1 Phase II trial announced in January 2003, showed MC-1's potent cardioprotective effect in reducing ischemic damage in patients undergoing angioplasty procedure, a result which gives us great optimism as we embark upon this next important stage in the clinical development of MC-1.

The first MEND-CABG patients were enrolled at Montreal Heart in April and enrollment will continue through spring 2005. The Phase II component of the Phase II/III trial will enroll up to 900 patients at approximately 40 investigational sites located throughout Canada and the United States.

The MEND-CABG study represents a key component of our strategy to establish MC-1 as a cardioprotective drug for the treatment of a variety of medical events and procedures involving ischemia and ischemic reperfusion injury. As was the case in MEND-1, we are again privileged to

be working with some of the world's leading cardiovascular surgeons and cardiologists from selected clinical centres throughout Canada and the United States.

COMBINATION PRODUCTS STRATEGY

During the past fiscal year, we announced that we would be moving forward with the development of our second product, MC-4232.

This product is part of our strategy to build further value within the Company. The plan involves the expedited clinical processes for a product combining the cardioprotective benefits of MC-1 with an ACE Inhibitor for the treatment of diabetic patients with hypertension. The association of hypertension with diabetes is a strong forecaster of cardiovascular risk. People with diabetes and hypertension are at increased risk for heart attacks, stroke, heart failure and renal disease. Having already demonstrated beneficial cardio-protective effects in the MEND-1 trial, the use of MC-1 in combination with a proven treatment for hypertension could be beneficial to this patient population, providing them with additional protection against the cardiovascular events associated with diabetes and hypertension.

The combination products strategy was initiated after reviewing the Company's proposed Phase II/III clinical program with the United States Food and Drug Administration (FDA).

This development program involves a series of Phase II and III studies, the first of which included an initial Phase II trial enrolling 15 patients with hypertension and diabetes. We were pleased with the preliminary results from this Phase II study as announced in April 2004, and we have subsequently proceeded with a further expansion of the MC-4232 clinical development program. The MATCHED study (MC-1 and ACE Therapeutic Combination for Hypertensive Diabetics) is a randomized, double-blinded, placebo controlled, double-crossover trial encompassing 120 patients with co-existing diabetes and hypertension.

Diabetes increases the risk of coronary artery disease five-fold; so does hypertension. Those effects multiply one another, meaning that someone with both diabetes and hypertension is 25 times more susceptible to coronary artery diseases. Given the high risk of serious cardiovascular incidents presented by the potentially deadly combination of hypertension and diabetes, we believe this patient population is ideal to be the first to receive MC-4232.

Data from our MEND-1 Phase II trial last year provided significantly positive results of MC-1's cardioprotective effects. While this alone would be sufficient to differentiate our product, the MATCHED study will provide us with information on additional benefits of MC-4232, such as improving control of hypertension and metabolic function, or improving upon the other medical challenges facing these patients.

EXPANDING OUR SHAREHOLDER BASE

One of our ongoing goals and commitments is to expand our shareholder base. In this regard, I am pleased to report that during fiscal 2004 we succeeded in achieving this goal.

In February, Medicure began trading its Common Shares on the American Stock Exchange® (AMEX®) under the ticker symbol MCU. This was an important milestone for the Company as it now provides a second major trading market for our stock, and increases market awareness for our shareholders. The United States listing has already resulted in increased visibility in the American marketplace and now makes the Company significantly more accessible to US investors.

Since the listing we have been extremely active in the US, introducing the Company to institutional investors and fund managers, sell side analysts, brokers and investment bankers in cities such as New York, Chicago, San Francisco, and other major financial centres.

Our goal remains to increase the exposure of our Company to both institutional and retail investors, thereby broadening our investor base to the benefit of all shareholders.

STRENGTHENING OUR FINANCIAL POSITION

To support our important initiatives and developments, we completed a successful private placement in June 2003, resulting in gross proceeds of $7.6 million. The over subscription of this Offering was a clear indication that we have earned the confidence and support from several significant institutional investors. This further represented a strong endorsement of our primary development products. Participants included some of the most knowledgeable and sophisticated biotech investors, particularly from Europe.

We further strengthened our financial position in December of 2004, when shareholders exercised some 99% of the Company's common share purchase warrants and agents' compensation units for proceeds of $14,578,750. The warrants and agents' compensation units were part of Medicure's public offering in December 2001. We were pleased with this outstanding level of participation as it again demonstrated the confidence our investors have in Medicure. Combined, these two events placed our Company on the strongest financial footing in our history.

FORTIFYING OUR INTELLECTUAL PROPERTIES

The strategy of Medicure's structure based drug design and development team is to explore cardiovascular and cerebrovascular therapeutics based on the scaffold of our lead drug MC-1. As a biologically active natural product, MC-1 provides an ideal basis for novel drug and library development. Working off this structure, Medicure's Drug Discovery Program has designed, synthesized and evaluated a library of more than 200 novel potential cardiovascular drug candidates.

The results and progress of our research and development efforts are best demonstrated by the issuance this past fiscal year of five new Patents and three Notices of Allowance protecting various newly discovered therapeutics.

While all of our patents are important, two are significant and notable. Patent number 6,677,356 covers pharmaceutical compositions and methods of treating hypertension with MC-1 in combination with various classes of anti-hypertensive drugs. It is one of the most significant in our Company's history, as it protects the integrity of MC-1's use in combination products by adding commercial value to our clinical products and creating interesting opportunities to add depth to our product pipeline.

The other is the Company's first European patent, number 1,162,980 which provides protection relating to the use of MC-1 and associated molecules in the treatment of cardiac hypertrophy and congestive heart failure. This patent is significant for the Company as it broadens the protection of our intellectual properties beyond the United States.

ENHANCING OUR MANAGEMENT TEAM & BOARD

Medicure continues to build upon its strong management team and Board of Directors.

Moray Merchant, MBA, joined the Company in September as Vice-President, Market and Business Development. With 23 years' pharmaceutical sales, marketing and business development experience, most recently as Vice-President, Sales and Marketing for aaiPharma Inc., Moray has substantial experience in business development, marketing and the building of sales and marketing organizations for pharmaceutical products within Canada and the United States.

He is contributing greatly towards building Medicure's future through his active role in establishing partnering arrangements and directing the commercialization, licensing and marketing the Company's products.

We also strengthened our Board of Directors in January with the appointment of Gerald P. McDole, MBA, former President and Chief Executive Officer of AstraZeneca Canada Inc. Having led AstraZeneca for 20 years, Mr. McDole has exceptional experience in the Canadian and international pharmaceutical industry. His involvement represents an asset to Medicure as we advance our clinical, business development and drug commercialization programs.

EXCITING OUTLOOK

I believe Medicure will continue on the path of solid growth and maturity. From the commencement of a major Phase II/III trial of MC-1, to the expansion of our clinical development program of MC-4232, we are succeeding in our commitment to our shareholders to become a leading force in this industry.

We are proud of the uniqueness of our lead product, MC-1, which addresses an area of major clinical need. By establishing MC-1's cardioprotective properties in a human trial, Medicure is well positioned to advance our clinical research towards achieving our ultimate goal, the successful commercialization of our cardiovascular products.

As we continue to advance these clinical programs, we also will maintain our commitment to our research initiatives and develop a strong infrastructure to enable us to bring these products to market expeditiously and efficiently.

I would like to acknowledge the leading cardiovascular experts who have contributed to our success to date. These include: Dr. Robert Harrington, Dr. James Tcheng and Dr. David Kandzari of Duke Medical Research Institute, and Dr. Jean-Claude Tardif of Montreal Heart Institute. I also want to express my sincere thanks and appreciation to our Board of Directors, our world class Scientific Advisory Board, chaired by Dr. Paul Armstrong of the University of Alberta and our growing group of Medicure employees. I greatly acknowledge all of their ongoing contributions to our success.

Finally, on behalf of the Board and all of us at Medicure, I want to thank our many institutional and private investors who have backed our initiatives and have continued to show their support, and, of course, our dedicated and talented group of employees who continue to drive us ever closer to realizing our ultimate goal. We look forward to fiscal 2005 with much optimism and confidence, as we will build our future on the strengths of the foundations we now have in place.

Yours sincerely,

Albert D. Friesen, Ph.D.
Chairman, President & Chief Executive Officer

CORPORATE HIGHLIGHTS & ACHIEVEMENTS FOR FISCAL 2004

JUNE 2003

SECOND CLINICAL CANDIDATE ANNOUNCED

- Launches clinical development program for its second product, MC-4232, for treatment of hypertension and related disorders.

$7.6 MILLION PRIVATE PLACEMENT SUCCESSFULLY CLOSES

- Completes equity financing by way of private placement of approximately 9 million common shares at $0.85 per share.

AUGUST 2003

NEW PATENT ISSUED IN TREATMENT OF STROKE

- Strengthens its proprietary position with receipt of its 7th patent and first in the treatment of stroke.

SEPTEMBER 2003

MEND-1 RESULTS HIGHLIGHTED IN AMERICAN JOURNAL OF CARDIOLOGY

- The successful results from the Company's MEND-1 Phase II trial in the area of angioplasty are chronicled in the prestigious American Journal of Cardiology.

OCTOBER 2003

Company Strengthens Executive Management Team

- Moray Merchant is hired as Vice-President, Market and Business Development, bringing 23 years pharma marketing & business development experience at such firms as DuPont Pharma and aaiPharma Inc..

NOVEMBER 2003

New Patent Issued in the Treatment of Cardiovascular and Related Diseases

- Further strengthens proprietary position with receipt of its 8th US patent in total, this one in the treatment of cardiovascular and related diseases.

Regulatory Approval is Granted for Start of Bypass Trial

- Receives FDA and TPD approval for the start of its Phase II/III clinical trial of MC-1 for treatment of Coronary Artery Bypass Graft (CABG) surgery.

DECEMBER 2003

$14.6 Million From Exercise of Warrants

- Receives $14.6 million from the exercise of Common Share Purchase Warrants pursuant to public offering, December 2001.

JANUARY 2004

Gerald McDole Appointed to Board of Directors

- Strengthens its Board of Directors with the appointment of Gerald McDole, retired President and CEO of Astra Zeneca.

FEBRUARY 2004

Medicure Shares Commence Trading on Amex

- Begins trading on the American Stock Exchange® (Amex®), under the ticker symbol MCU.

New Patent Issued

- Receives its 9th US patent for treatment of cardiovascular diseases.

MARCH 2004

New Patent Covering Hypertension Issued

- Receives one of its most important patents to date – and 10th overall – relating to combination products incorporating MC-1 in the treatment of hypertension and related disorders.

APRIL 2004

First Patient Enrolled in CABG Trial

- Enrolls first patient in the Phase II/III MEND-CABG clinical trial. The Phase II component of the trial will enroll up to 900 patients at approximately 40 clinical sites throughout North America.

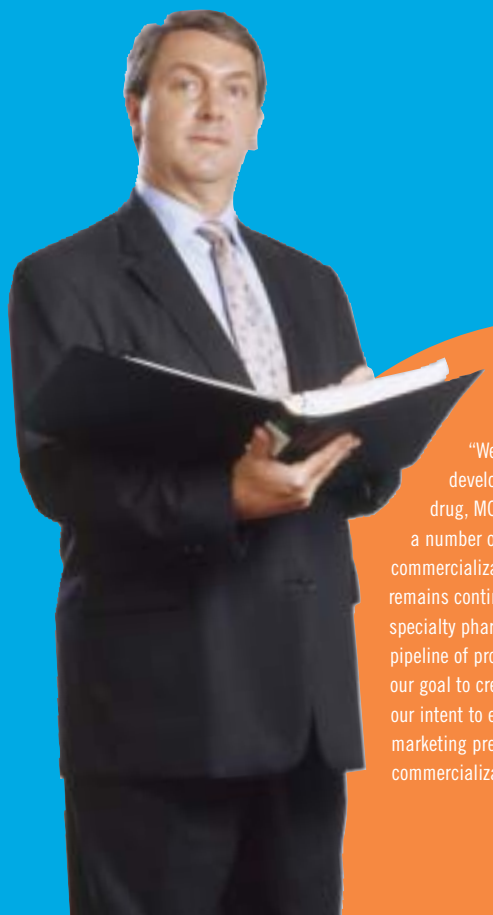
Preliminary Results From MC-4232 Hypertension Trial Announced

- The preliminary results from Medicure's Phase II hypertension study supports the Company proceeding with expansion of its MC-4232 clinical development program. Data shows a positive trend in glycemic control in diabetic hypertensive patients.

MAY 2004

First European Patent Received

- Receives its first European patent related to the treatment of cardiovascular and related diseases.



"We are pleased with our progress in the development of MC-1 and our first combination drug, MC-4232. Our clinical success to date has led a number of organizations to initiate licensing and commercialization discussions with Medicure. There remains continuing interest from major pharmaceutical and specialty pharma companies with respect to our developing pipeline of products. In line with our business strategy and our goal to create optimal value for our shareholders, it is our intent to establish partnerships that provide a strong marketing presence and a proven development and commercialization expertise."

— Moray Merchant, MBA, Vice President Market and Business Development

PRODUCT	CLINICAL INDICATION	DISCOVERY	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3
MC-1	ISCHEMIC REPERFUSION (PCI, CABG) ACUTE CORONARY SYNDROME					
MC-4232	DIABETIC HYPERTENSION					
MC-1	STROKE					
MC-45228	ANTITHROMBOTIC					
MC-5422	ANTI-ISCHEMIC					

"Clinical development is always made easier when there are no surprises along the way that often force you to take a step back and spend time and money on sorting things out. Thanks to careful planning and execution of studies undertaken to date, the clinical development of MC-1 has gone smoothly and efficiently. As we move closer to Phase III clinical testing, I am both encouraged and excited about the progress we have made and the picture that is emerging as a result of our efforts."

— K-G Hidinger Ph.D.
Vice- President, Clinical Development

As a cardioprotective, MC-1 protects heart cells from damage caused by the blockage of blood flow to the heart. MC-1 has demonstrated this effect in patients undergoing angioplasty (PCI) and is currently being tested in patients undergoing Coronary Artery Bypass Graft (CABG) surgery. Further development will involve Phase III trials in Acute Coronary Syndromes (ACS), Acute Myocardial Infarction (AMI), and PCI.

MC-4232 is a combination product using MC-1 and an ACE Inhibitor to treat diabetic patients with hypertension and related cardiovascular disorders. A major Phase II trial in up to 120 diabetics with hypertension is currently underway.

Pre-clinical studies have demonstrated MC-1's ability to protect heart cells from ischemic damage, which also extends to brain cells. Stroke is to the brain as a heart attack is to the heart – it occurs when a blockage in a blood vessel interrupts the supply of oxygen and nutrients to the cells. Medicure is working towards exploring MC-1's efficacy in stroke in a planned proof-of-principle human study.

The Company's lead molecule, in the antithrombotic development program MC-45228, is a novel antiplatelet agent, which reduces ischemic damage to the heart, as well as the brain. Optimization of MC-45228 has led to identification of several new "hits" to address thrombotic disorders. Platelet aggregation and activation of coagulation cascade are the key factors for heart attacks and stroke. Medicure has discovered several novel dual antiplatelet/anti-coagulant compounds. Preclinical, in-vivo assessment of these compounds in the thrombosis model is now underway.

MC-5422 is a novel mimetic of MC-1 that has shown the ability to reduce damage caused by ischemic injury. This type of damage is a key factor in negative outcomes following angioplasty and CABG procedures, or a heart attack. Medicure continues to evaluate MC-5422 with the objective of advancing a new anti-ischemic into clinical testing.

THE CARDIOVASCULAR MARKET

Cardiovascular diseases (CVD) are the most prevalent of all diseases: an estimated 58 million Americans and 100 million people worldwide suffer from one or more forms of cardiovascular diseases. Worldwide, CVD results in 14 million deaths each year, or about 20% of all deaths.

- Nearly 2,600 Americans die each day of CVD, one every 34 seconds
- CVD claims more lives each year in the USA than all 5 of the next leading causes of death combined, which include: cancer, chronic lower respiratory diseases, accidents, diabetes mellitus and influenza & pneumonia
- Global sales in the cardiovascular market reached USD$72.6 billion in 2002
- The total direct and indirect costs for CVD is estimated at USD$368.4 billion in the USA.

INDICATION	PREVALENCE	INCIDENCE	MEDICURE'S PRODUCT
ANGINA	6.8 million	400,000	MC-1
HEART ATTACK (AMI)	7.8 million	1.1 million	MC-1
CABG & PCI REPERFUSION INJURY	——	1.6 million	MC-1
HYPERTENSION	58 million	———	MC-4232
STROKE	4.8 million	700,000	MC-1

Source: American Heart Association – Heart & Stroke Statistics 2004

"By joining Medicure, I have realized my dream of being directly involved in the clinical science behind a major new advancement in the cardiovascular pathology and pharmacotherapy, particularly in the challenging area of ischemic reperfusion injury. Where different compounds from other companies have failed in the past, the MEND-1 trial gave us a very positive signal with MC-1. I am proud to be a part of Medicure's outstanding management, drug-discovery and clinical-research team, contributing to programs simultaneously characterized by simplicity and innovation."

— Ahmad Khalil, MD, Ph.D.
Medical Director

MC-1 FOR ACUTE CARDIOVASCULAR CONDITIONS

MEDICURE IS DEVELOPING MC-1 AS A CARDIOPROTECTIVE FOR REDUCTION IN DAMAGE ASSOCIATED WITH ACUTE CORONARY SYNDROMES, INCLUDING UNSTABLE ANGINA AND MYOCARDIAL INFARCTION, AND FROM CARDIOVASCULAR INTERVENTIONS SUCH AS CORONARY BYPASS AND ANGIOPLASTY. MEDICURE'S FIRST COMMERCIALIZATION EFFORT IN THIS AREA IS CENTERED ON CORONARY BYPASS GRAFT (CABG) SURGERY.

"Current therapies for patients undergoing CABG fall short in terms of effectiveness, and the necessity for a cardioprotective drug for this growing health concern is indisputable. Given earlier clinical results demonstrating MC-1's ability to significantly reduce the amount of damage to the heart as a result of angioplasty, it now becomes important to evaluate the impact of longer-term treatment with MC-1 in the prevention of cardiovascular and neurovascular consequences of CABG surgery."

— Jean-Claude Tardif, MD, FRCPC, FACC
Principal Investigator for the Canadian MEND-CABG sites, and Director, MHI Research Centre, CIHR Research Chair in Atherosclerosis, Montreal Heart Institute

THE MEND-CABG STUDY

The positive and exciting results from Medicure's MEND-1 Phase II Clinical Trial in 2003, clearly demonstrated the ability of MC-1 to reduce damage to the heart in high-risk patients undergoing angioplasty.

Having demonstrated MC-1's cardioprotective capabilities, the stage was set for the next phase of development – showing MC-1's efficacy in reducing heart and neurological damage resulting from CABG surgery.

PATIENTS ENROLLED

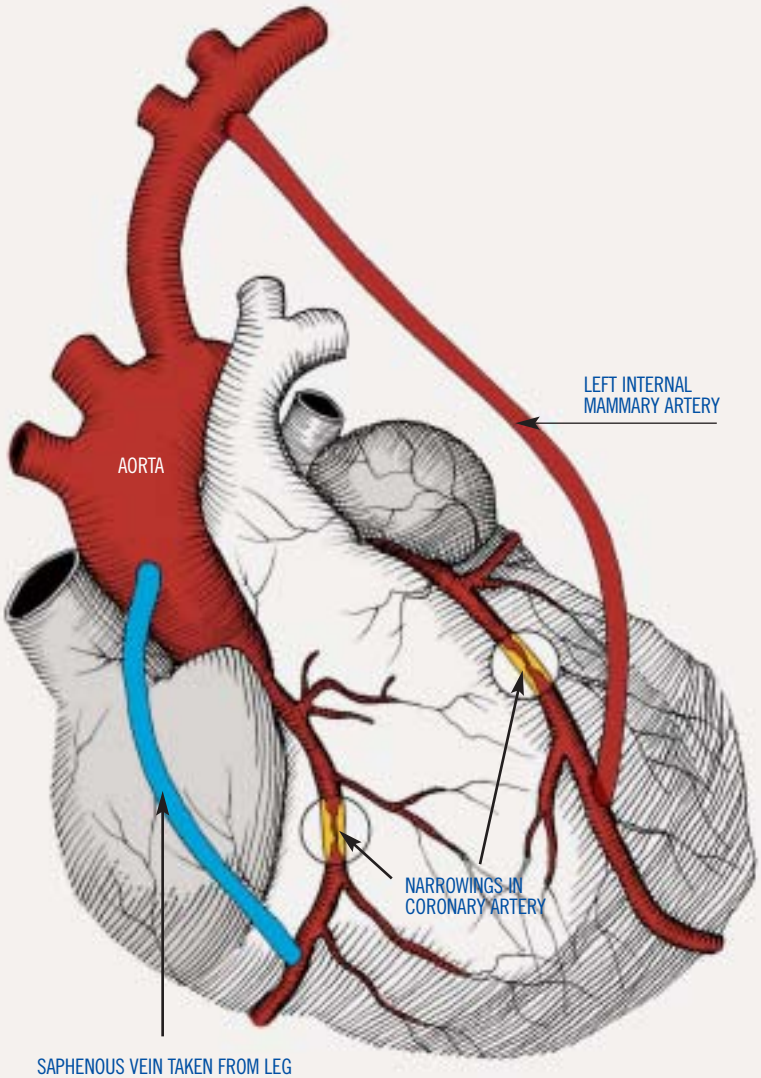
In April, the first patients were enrolled in Medicure's Phase II/III MEND-CABG clinical trial. The placebo controlled, double-blinded study is designed to evaluate the potential of two-doses – 250 mg and 750 mg per day – of Medicure's lead drug in reducing ischemic damage resulting from CABG procedures.

The primary efficacy parameter is the reduction in combined incidence of cardiovascular and cerebrovascular death, non-fatal myocardial infarction (heart attack) and non-fatal cerebral infarction (stroke), up to and including 30 days following CABG surgery. Secondary endpoints include, among others, the difference in AUC CK-MB (0 - 24 hours) as a marker of cardiovascular damage, the same measure in which MC-1's cardioprotective effect was first demonstrated in MEND-1. Drug safety along with other secondary endpoints including the reduction in cognitive deficit, a well-documented problem associated with the CABG procedure will be assessed in this clinical trial.

The first patients were enrolled at the Montreal Heart Institute (MHI), which, along with Duke Clinical Research Institute (DCRI), is managing the trial. The Phase II component of the Phase II/III trial will enroll up to 900 patients – 300 per arm – at approximately 40 investigational sites located throughout North America.

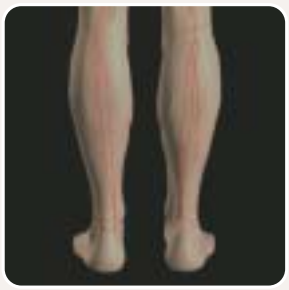
Jean-Claude Tardif, MD, FRCPC, FACC, Associate Professor of Medicine at Montreal Heart Institute and Director, MHI Research Centre, is the trial's Principal Investigator and Chairman of the Steering Committee. David Kandzari, MD, Assistant Professor of Medicine & Director, Interventional Cardiology Research at DCRI, will oversee the U.S. portion of the trial.

CARDIOPROTECTIVE THERAPEUTIC NEEDED FOR CABG PROCEDURE



THE CABG PROCEDURE:

Coronary Artery Bypass Graft (CABG) surgery is a procedure used to "detour" blood flow around blocked arteries. All forms of bypass surgery involve the removal of a "clean" vessel (graft) from the leg, chest, or arm, and attaching it to the areas around the blocked artery in order to restore blood flow. The goal of the surgery is to improve blood flow and alleviate chest pain and other symptoms.



SAPHENOUS VEIN

PROTECTING THE DAMAGE TO THE HEART MUSCLE:

Current therapies for patients undergoing CABG are inadequate in terms of effectiveness and the need for a cardioprotective drug for this major health concern is indisputable. Many patients develop cardiovascular and neurovascular consequences as a result of the CABG procedure. Medicure's MEND-CABG trial will evaluate the efficacy of MC-1 in reducing heart and neurological damage resulting from the CABG procedure.

"Despite the overall efficacy of reperfusion therapies to reduce the morbidity and mortality associated with acute ischemic syndromes, many treated patients still develop impaired microvascular integrity, embolization of atherothrombotic debris, and/or disrupted end-organ metabolism. Along with preclinical investigations demonstrating cardioprotective effects in reperfusion injury, early clinical experience with MC-1 also appears promising with a recent Phase II trial demonstrating a statistically significant reduction in infarct size among high-risk patients undergoing percutaneous coronary revascularization. Based on these findings, a large, randomized trial – MEND-CABG – has been initiated to clarify the safety and efficacy of MC-1, and to improve our understanding regarding its therapeutic role in a broader clinical setting and indication."

— David Kandzari, MD, Principal Investigator for the US MEND-CABG sites, and Assistant Professor of Interventional Cardiology and Genomic Sciences, Duke Clinical Research Institute

OVER 1 MILLION CABG PROCEDURES PERFORMED ANNUALLY

CABG is a medical procedure performed to improve blood flow to the heart by re-routing blood around the blocked artery. Due to the high incidence of coronary artery disease worldwide, as well as the effectiveness of this surgical procedure, CABG surgery is one of the 10 most frequently performed procedures in North America. Over 1 million CABG procedures are performed every year in North America and the European Union.

SIGNIFICANT NEED FOR A THERAPEUTIC IN THIS AREA

While CABG surgery effectively relieves angina and results in longer survival and a better quality of life for patients who experience a blockage to a major coronary artery, patients still experience significant ischemic and reperfusion injury during the procedure. This injury can lead to subsequent problems such as myocardial infarction (heart attack) or stroke. As such, there is a significant need for a protective drug to work at the cellular level to reduce the extent of injury to the heart during this procedure and thus improve the long-term quality of life for the patient.

The MEND-CABG Clinical Investigators and Coordinators.

COMBINATION STRATEGY IMPLEMENTED

MC-1 REPRESENTS A NEW CLASS OF THERAPEUTIC THAT HAS POTENTIAL APPLICATION IN A VARIETY OF CARDIOVASCULAR AND CEREBROVASCULAR INDICATIONS. THE NATURAL OCCURRING PRODUCT HAS ALSO BEEN DEMONSTRATED TO HAVE AN EXCEPTIONAL SAFETY PROFILE, WHICH MAKES IT DISTINCTIVE IN THE CARDIOVASCULAR MARKET, WHERE MANY PRODUCTS HAVE SUBSTANTIAL RISKS ASSOCIATED WITH THEIR ADMINISTRATION. MOREOVER, ITS SAFETY, IN USE WITH EXISTING DRUGS, PRESENTS THE OPPORTUNITY FOR ITS USE IN NEW COMBINATION PRODUCTS.

Medicure's initial combination program, aimed at further capitalizing on the broad potential of MC-1, centres around MC-4232, a product that combines the cardioprotective benefit of MC-1 with an ACE Inhibitor, for the treatment of diabetic patients with hypertension and related cardiovascular problems.

MC-4232 addresses the major need for cardioprotection and improved therapeutic control of patients with diabetes and hypertension. As it incorporates an ACE Inhibitor, an established first line therapy for blood pressure control in diabetic patients, the product will tap into the existing large market for this class of drugs, which, in 2003, exceeded USD$2.8 billion in sales within the United States alone.

Hypertension is a disorder in which blood pressure remains abnormally high. It is the most common chronic disorder in the United States, affecting more than 50 million adult Americans. Approximately 73% of people who have hypertension are not adequately treated.

Recent studies have shown that despite substantial clinical research and refinements to existing pharmacological therapy, the ability to control hypertension remains at the same as level as it did in the 1980s, and it is now well accepted that most patients require multiple treatment approaches in order to achieve blood pressure goals.

Diabetes, a condition where the patient has impaired ability to utilize blood glucose for energy, is a major complicating factor for approximately 12 million Americans who also have hypertension. These coexisting conditions present a major increase in risk of macrovascular and microvascular complications, including stroke, coronary artery disease, peripheral artery disease, retinopathy, nephropathy and possible neuropathy.

There is no drug on the market today that specifically targets the numerous problems associated with the diabetic hypertensive patient. There remains a need for products that can reduce the risk associated with progressing cardiovascular disease and tissue damage resulting from increased blood pressure and elevated blood sugar levels. This represents the opportunity Medicure is pursuing through the development of MC-4232.

"Given the high risk of serious cardiovascular incidents presented by the deadly combination of hypertension and diabetes, we felt this would be an ideal market to address with our first combination product, MC-4232. This combination marries MC-1's cardioprotective properties with an ACE Inhibitor, the most common form of hypertensive therapy for these patients. While MC-1's cardioprotection alone is sufficient to differentiate our product, the MATCHED study, led by one of the world's leaders in this field of medicine, will give us information as to whether MC-1 will provide even further benefit to these patients, whether by improving control of hypertension, blood glucose, or another of the many challenges faced by these patients."

– Dawson Reimer, MAES
Vice-President, Operations

matched

MC-1 and **A**ce **T**herapeutic **C**ombination
for **H**ypertensiv**e** **D**iabetics

"Hypertension and diabetes present a dangerous and daunting challenge to the medical community. This problem is compounded as their prevalence increases while therapeutic control remains inadequate. There is thus a significant need for a protective drug such as MC-1 to reduce the morbid complications of this complicated situation diseases. This clinical trial is designed to provide sufficient evidence about the beneficial effects of MC-1 and ACE Inhibitor for proceeding to a larger pivotal trial in hypertension and diabetes mellitus."

— Yves Lacourcière MD, FRCP, FACP
Principle Investigator, MATCHED study,
and Professor of Medicine, Laval University &
Director of Hypertension Research Unit, Centre
Hospitalier de l'Université Laval, Québec

Recognizing this potential, Medicure met with the United States Food and Drug Administration (FDA) early in fiscal 2004 to consider the Company's proposed development of MC-4232. The FDA advised Medicure its proposed product development plan was adequate to proceed with an expedited registration program, known as 505(b)2. This innovative approach reduces the clinical and registration requirements for single product combining the two drugs, in this case MC-1 and an existing ACE Inhibitor. Upon receiving this acceptance, Medicure proceeded directly into a Phase II clinical program.

The initial 15-patient Phase II trial tested MC-1 alone in diabetic hypertensive patients. Preliminary results from this trial supported expansion of the Company's Phase II clinical program as a prelude to MC-4232's Phase III clinical study.

The MATCHED study (MC-1 and ACE Therapeutic Combination for Hypertensive Diabetics) is a randomized, double-blinded, placebo controlled, double-crossover trial encompassing up to 120 patients with co-existing diabetes and hypertension. The study is designed to assess the effects of three doses of MC-1, alone and in combination with an ACE Inhibitor, against a variety of parameters, including blood pressure and glucose control. The study will also provide additional information on safety of MC-1 in this patient population.

This ground breaking trial is being conducted under the guidance and direction of internationally recognized hypertension expert, Yves Lacourcière, MD, FRCP, FACP, Professor of Medicine, Laval University, and Director of the Hypertension Research Unit, Centre Hospitalier Universite Laval, Sainte-Foy, Quebec. Dr. Lacourcière is leading a group of 14 specialist investigators enrolling patients at sites across Canada.

This study will provide important information for transition to a Phase III registration study and provide data to distinguish MC-1 as a valued therapy for this difficult to treat patient group.

LED BY AN OUTSTANDING TEAM OF SCIENTISTS, MEDICURE'S DRUG DISCOVERY PROGRAM UTILIZES UNIQUE SCAFFOLDS FOR THE DESIGN AND SYNTHESIS OF NOVEL CARDIOVASCULAR AND CEREBROVASCULAR DRUGS.

DRUG DISCOVERY PROGRAM

THE OBJECTIVE OF MEDICURE'S DRUG DISCOVERY PROGRAM IS TO DEVELOP NEW CHEMICAL ENTITIES WITH COMMERCIAL POTENTIAL TO MEET UNMET CARDIOVASCULAR AND CEREBROVASCULAR MARKET NEEDS. MEDICURE HAS WELL-ESTABLISHED CAPABILITIES IN THE AREAS OF MEDICINAL CHEMISTRY, PHYSIOLOGY, AND BIO-CHEMICAL SCREENING, ALL NECESSARY TO UNDERTAKE THIS PROGRAM.

Novel molecules designed by the drug discovery team are based on the unique scaffold of the Company's lead drug, MC-1. As a biologically active natural occurring product, MC-1 can be regarded as a chemical architecture, or scaffold that has been established and validated for biological effect and safety, providing a powerful guiding principle for novel drug and library development. The structure of MC-1 also provides a niche area for the Company's chemistry team to exploit and build upon their chemical understanding of the lead molecule itself.

Novel compounds produced by the medicinal chemistry program have advanced to pre-clinical studies to evaluate their potential for human cardiovascular disease. Promising compounds are advanced into further preclinical development towards commercialization and also provide a platform for developing an expanded library of related compounds. Through this approach, the Drug Discovery Program has produced hundreds of new chemical entities and several new leads have been generated for preclinical development.

ANTI-ISCHEMICS PROGRAM

One area of focus being undertaken is the design and synthesis of tenable MC-1 mimetics to address ischemic and reperfusion injury. Medicure's library of novel anti-ischemics includes MC-5422, a novel agent that has displayed potent capabilities of reducing damage from ischemic reperfusion. At the same time as Medicure's other anti-ischemics are being screened to evaluate their biological effect, the Company continues preclinical studies of MC-5422 with a view to future clinical testing.

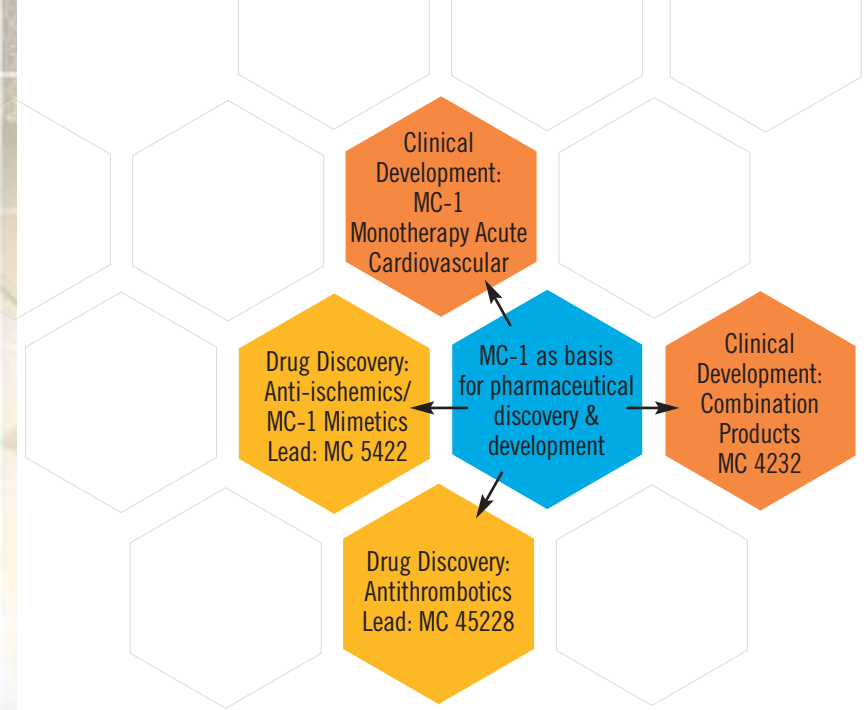
Preliminary toxicology studies carried out on this lead candidate have demonstrated its safety, supporting further study and development of the product.

"Medicure's quest to address the unmet needs in cardiovascular diseases is being realized with our Drug Discovery team synthesizing unique chemical structures that carry dual anti-platelet/anticoagulant effects, an achievement without precedence in this important sector of the cardiovascular market."

— Wasimul Haque, Ph.D.
Director of Chemistry

"This is definitely an exciting time for Medicure, as we witness the expansion of the number of new chemical entities in both the anti-ischemic and antithrombotic libraries. In the past year we have seen promising in vivo results from testing compounds from both of these projects and we are optimistic about prospects as we move forward with evaluating "drugability" of several of our more promising library compounds."

— James Diakur, Ph.D.
Associate Director of Chemistry



ANTITHROMBOTICS PROGRAM

A second focus involves the design and synthesis of novel antithrombotics using the MC-1 platform as a fragment based drug discovery approach to address venous and arterial thrombosis.

Antithrombotics are drugs that prevent blood factors (platelets and fibrin) from aggregating and subsequently blocking blood flow. These compounds have applications in clinical indications ranging from the chronic prevention of stroke to acute treatment for heart attacks and numerous other cardiovascular pathologies.

The antithrombotic program focuses on the design of compounds to reduce platelet activation, adhesion and aggregation. MC-45228, the lead compound in this program, has achieved favourable results in preliminary toxicology studies and in pre-clinical cerebro- and cardiovascular efficacy studies. Lead optimization of MC-45228 has resulted in the identification of several new chemical identities with improved anti-platelet effects or dual anti-platelet/ anticoagulant effect (*in vitro* studies).

"Progress made over the past year in screening Medicure's library of anti-ischemic compounds has allowed us to identify several novel compounds that have similar in vitro and in vivo effects to MC-1. Using these compounds as a template, our drug discovery is now focused on further enhancing the therapeutic potential of these cardio protective compounds, resulting in second-generation products with broadened clinical application"

— Deborah Douglas, Ph.D.
Director of Physiology

ANNUAL REPORT 2004

MANAGEMENT'S DISCUSSION AND ANALYSIS & FINANCIAL STATEMENTS

MANAGEMENT'S DISCUSSION AND ANALYSIS

JULY 22, 2004

THE FOLLOWING DISCUSSION AND ANALYSIS SHOULD BE READ IN CONJUNCTION WITH THE AUDITED CONSOLIDATED FINANCIAL STATEMENTS AND RELATED NOTES INCLUDED HEREIN THAT ARE PREPARED IN ACCORDANCE WITH CANADIAN GENERALLY ACCEPTED ACCOUNTING PRINCIPLES, WHICH, EXCEPT AS DESCRIBED IN NOTE 9, CONFORM IN ALL MATERIAL RESPECTS WITH GENERALLY ACCEPTED ACCOUNTING PRINCIPLES IN THE UNITED STATES. ALL AMOUNTS ARE EXPRESSED IN CANADIAN DOLLARS UNLESS OTHERWISE NOTED. ANNUAL REFERENCES ARE TO THE COMPANY'S FISCAL YEARS, WHICH END ON MAY 31.

OVERVIEW

Medicure Inc. (the "Company") is focused on the discovery and development of therapeutics for various large-market, unmet cardiovascular needs. The Company's research and development program is currently focused on the clinical development of the Company's lead product, MC-1 and a second product MC-4232, and the discovery and development of other drug candidates.

Table 1 summarizes our clinical product candidates, their therapeutic focus and their stage of development.

MC-1 is a natural compound that is being developed as a treatment to reduce injury from blockages of blood to the heart (i.e. myocardial ischemia, associated with heart attacks, angina and arrhythmia) and the brain (i.e. ischemic stroke) and to prevent injury from ischemic reperfusion injury. Ischemic reperfusion injury occurs when blood flow to an organ is suddenly resumed following a stoppage, as occurs during medical procedures such as heart surgery. The results from a Phase II clinical trial, MEND-1, showed that MC-1, reduces ischemic heart damage following angioplasty. The results demonstrated the cardioprotective effects and safety of MC-1 in high-risk patients undergoing angioplasty. Ischemia and ischemic reperfusion injury remain a major inadequately treated area of cardiovascular medicine.

The Company's second product, MC-4232 is being developed for use in the treatment of hypertension, particularly for those with difficult to treat hypertension complicated by co-existing diabetes. MC-4232 is a combination product incorporating MC-1 and an ACE Inhibitor. Approximately 50 million adult Americans have high blood pressure. Of those, 73% are not adequately controlled and therefore have an increased risk of heart attack, stroke, kidney failure, damage to the eyes, heart failure, and atherosclerosis. Control of hypertension for certain subsets of this population has remained inadequate despite the availability of several key classes of compounds.

In parallel to the development of MC-1 and MC-4232, the Company has focused on designing and developing novel therapeutics to offer improved treatment for cardiovascular and cerebrovascular diseases through its drug discovery program. Its objective is to discover and in-license new drug candidates for advancement into clinical development and commercialization. The Company's drug discovery program is utilizing a unique natural product template with a promising safety profile for the design and synthesis of effective therapeutics. The Company has already produced several groups of candidate compounds and plans to build a pipeline of additional preclinical products over the next several years. Some of the Company's new compounds have shown positive effects in *in vitro* and *in vivo* efficacy studies and are being studied further to evaluate their commercial potential.

CRITICAL ACCOUNTING ESTIMATES AND CHANGES IN ACCOUNTING POLICIES

The Company's consolidated financial statements are prepared in accordance with Canadian generally accepted accounting principles ("Canadian GAAP"). A reconciliation of material measurement differences to

TABLE 1

PRODUCT CANDIDATE	THERAPEUTIC FOCUS	STAGE OF DEVELOPMENT
MC-1	Coronary Artery Bypass Graft Surgery	Phase II
MC-4232	Hypertension	Phase II
MC-1	Stroke	Phase I
MC-45228	Antithrombotic	Discovery
MC-5422	Anti-Ischemic	Discovery

United States generally accepted accounting principles ("US GAAP") is presented in note 9 to the audited consolidated financial statements for the year ended May 31, 2004. These accounting principles require management to make certain estimates and assumptions. Management believes that the estimates and assumptions upon which the Company relies are reasonable based upon information available at the time these estimates and assumptions are made. Actual results could differ from these estimates. Areas of significant estimates include research and development, the assessment of net recoverable value of patents, and stock-based compensation.

Research and development costs

All costs of research activities are expensed in the period in which they are incurred. Development costs are charged as an expense in the period incurred unless a development project meets stringent criteria for cost deferral and amortization. The Company assesses whether these costs have met the relevant criteria for deferral and amortization at each reporting date. No development costs have been deferred to date.

Patents

On a regular basis, management reviews the valuation of patents taking into consideration any events and circumstances which may impair their recoverable value. The new Section 3063 of the Canadian Institute of Chartered Accountants ("CICA") Handbook, *Impairment of Long Lived Assets*, calls for the recognition, measurement and disclosure of the impairment of long-lived assets for fiscal years beginning on or after April 1, 2003. With consideration given to this new section management reviewed the carrying value of its patents and no adjustment was made to the capitalized patent costs.

Stock-based compensation

The Company adopted the fair value method of accounting for all employee stock-based compensation in the fourth quarter of fiscal 2004 pursuant to the amended recommendations of the CICA Handbook Section 3870, *Stock-based Compensation and Other Stock-based Payments*. The Company had previously adopted the recommendations, as required, for awards granted under its stock option plan to non-employees effective June 1, 2002. The stock-based compensation recorded by the Company is a critical accounting estimate because of the value of compensation recorded, the volume of the Company's stock option activity, and the many assumptions that are required to be made to calculate the compensation expense. The amended recommendations of CICA Handbook Section 3870 provide that a company may apply the rules on a prospective basis or a retroactive basis and that a company may choose to voluntarily adopt the amended recommendations in fiscal 2004 rather than on the required adoption date for the Company of June 1, 2004.

As permitted, the Company has applied a fair value based method to expense employee, management or directors stock options awarded since June 1, 2003. The Company accounts for stock options granted to non-employees on or after June 1, 2002 using the fair value method.

Compensation expense is recorded for stock options issued to employees and non-employees using the fair value method. The Company must calculate the fair value of stock options issued and amortize the fair value to stock compensation expense over the vesting period, and adjust the amortization for stock option forfeitures and cancellations. The Company uses the Black-Scholes model to calculate the fair value of stock options issued which requires that certain assumptions including the expected life of the option and expected volatility of the stock be estimated at the time that the options are issued. The Company amortizes the fair value using the accelerated method over the vesting period of the options, generally a period of three years. The factors included in the Black-Scholes model are reasonably likely to change from period to period due to changes in the Company's stock price and external factors, as further stock options are issued and as adjustments are made to previous calculations for unvested stock option forfeitures and cancellations.

The Black-Scholes model is not the only permitted model to calculate the fair value of stock options issued pursuant to Handbook Section 3870. A different model, such as the binomial model, as well as any changes to the assumptions made may result in a different stock compensation expense calculation. The Company recorded stock compensation expense in fiscal 2004 of $386,048.

NEW ACCOUNTING POLICY EXPECTED TO BE ADOPTED IN THE SUBSEQUENT YEAR

GAAP Hierarchy

The new CICA Handbook Section 1100, *Generally Accepted Accounting Principles* has been issued, effective for fiscal years beginning on or after October 1, 2003. The new section established standards for financial reporting in accordance with Canadian GAAP. It clarifies the relative authority of various accounting pronouncements and other sources of guidance within Canadian GAAP. The new standard eliminates industry practice as a possible source to consult. The Company does not expect that the implementation of this new standard will have a significant impact on its consolidated financial statements.

SELECTED FINANCIAL INFORMATION

The following is selected financial information about the Company, for its 2004, 2003 and 2002 fiscal years:

(IN THOUSANDS OF CDN$ EXCEPT PER SHARE DATA)	2004	2003	2002
Revenue	445	241	184
Research and development expenses	(4,279)	(3,118)	(3,104)
General and administrative expenses	(2,115)	(1,284)	(950)
Amortization	(41)	(33)	(61)
Loss for the year	(5,989)	(4,194)	(3,875)
Loss per share	(0.11)	(0.11)	(0.14)
Total assets	22,385	5,296	9,377
Total liabilities	817	354	8,987
Deficit	(18,655)	(12,665)	(8,472)
Total capital stock and contributed surplus	40,223	17,607	17,459

QUARTERLY FINANCIAL INFORMATION FOR 2004 AND 2003

The following is quarterly financial information about the Company, for its years ended May 31, 2004 and May 31, 2003:

(IN THOUSANDS OF CDN$ EXCEPT PER SHARE DATA)	AUG 31	NOV 30	FEB 29	MAY 31	TOTAL
2004					
Revenue	74	80	163	128	445
Net loss	(1,107)	(1,284)	(1,531)	(2,067)	(5,989)
Loss per share	(0.02)	(0.03)	(0.02)	(0.03)	(0.11)
2003					
Revenue	67	57	69	48	241
Net loss	(1,206)	(1,172)	(918)	(898)	(4,194)
Loss per share	(0.03)	(0.03)	(0.02)	(0.02)	(0.11)

As noted, the Company adopted the fair value method of accounting for all employee stock-based compensation in the fourth quarter of fiscal 2004 pursuant to the recommendations of the CICA Handbook Section 3870, *Stock-based Compensation and Other Stock-based Payments*. The Company retroactively restated the financial results of the previously reported quarterly financial information in fiscal 2004 to reflect the adoption of these new standards. The impact on the financial results for the three-month periods ended August 31, 2003, November 30, 2003 and February 29, 2004 was to increase the previously reported loss for the period by $8,000, $37,000 and $64,000, respectively.

RESULTS OF OPERATIONS

Research and Development

The Company is a development-stage enterprise that dedicates the majority of its cash resources to research and development activities. Research and development expenditures include costs associated with the Company's clinical development and preclinical programs including salaries, research centre costs and monitoring costs. The Company expenses all research and development costs. Prepaid research and development costs are deferred, and represent advance payments under contractual arrangements for clinical activity outsourced to research centers.

Research and development expenditures for the fourth quarter ended May 31, 2004 were $1,540,000 as compared to $602,000 for the same quarter in fiscal 2003. Research and development expenditures increased to $4,279,000 in fiscal 2004 as compared to $3,118,000 for fiscal 2003 and represent 67% of the Company's total expenditures in fiscal 2004. Research and development expenditures for fiscal 2004 were higher due to the

ongoing Phase II/III Coronary Artery Bypass Graft (CABG) trial attributed to MC-1, called MEND-CABG and the clinical development program of MC-4232. The Company initiated patient enrollment of the MEND-CABG study in April 2004. The Phase II portion of the study will enroll up to 900 patients. The study will evaluate the ischemic reperfusion and neuro-protective effects of MC-1 in patients undergoing high-risk CABG surgery. The trial is being conducted at approximately 40 cardiac centres throughout Canada and the US and is managed by Montreal Heart Institute and Duke Clinical Research Institute (DCRI).

The initiation of the MEND-CABG trial was based on the Phase II trial, MEND-1, managed by DCRI, which showed that the Company's lead product, MC-1, reduces ischemic heart damage following angioplasty as determined by the release of the amount of the marker cardiac enzyme, CK-MB. The trial enrolled a total of 60 high-risk patients undergoing percutaneous coronary intervention (PCI), and was conducted at four medical centres in Canada and the USA.

The increase in research and development expenditures was also due to the clinical development program of MC-4232, which commenced in early fiscal 2004. In a pre-IND meeting to consider the Company's proposed development of MC-4232, the United States Food and Drug Administration (FDA) advised the Company its proposed Phase II/III clinical program was adequate to proceed with an expedited registration program known as 505(b)2. Based on the plan presented to the FDA, the Company initiated an exploratory Phase II study in early fiscal 2004. The initial Phase II trial tested MC-1 alone to establish complementary therapeutic effects of MC-1 and dosing regimens. In the fourth quarter of fiscal 2004, the Company announced preliminary results from the Phase II trial. These results support the Company proceeding with the expansion of its MC-4232 clinical development program.

The Company expects the research and development expenditures for fiscal 2005 to be significantly higher than fiscal 2004. A significant portion of the increase in expenditures during fiscal 2005 will be incurred in the Phase II/III MEND-CABG trial attributed to MC-1 and the clinical development program of MC-4232.

General and Administration

General and administrative expenses include salaries and related costs for those employees not directly involved in research and development, but are required to support ongoing business development and corporate stewardship activities. The balance also includes professional fees such as legal, audit, investor and public relations and business development activities. For the fourth quarter these expenditures totaled $644,000 compared to $334,000 for the same quarter of the prior fiscal year. General and administration expenses totaled $2,115,000 for the year ended May 31, 2004, as compared to $1,284,000 for the year ended May 31, 2003. The increased spending in fiscal 2004 as compared to fiscal 2003 was primarily attributable to the internal growth that was required to support the Company's increased business development and investor relations activities, regulatory costs and professional fees. This includes costs associated with listing on the American Stock Exchange during the third quarter of fiscal 2004. The Company expects slightly higher levels of general and administrative activities for fiscal 2005 to support increased business development activities.

Interest and Other Income

Interest and other income for the fourth quarter ended May 31, 2004 was $128,000 compared to $48,000 for the fourth quarter ended May 31, 2003. Interest and other income for fiscal 2004 totaled $445,000 as compared to $241,000 for fiscal 2003. Interest income was higher in fiscal 2004 primarily due to a larger average cash and cash equivalents balance, which resulted primarily from an equity offering and warrant conversion in fiscal 2004 that raised net proceeds of $21,617,000. Throughout fiscal 2004 and fiscal 2003, management invested funds in short-term investments.

Results

The consolidated net loss from operations for the three months ended May 31, 2004 was $2,067,000 or $0.03 per share compared to a net loss of $898,000 or $0.02 per share for the three-month period ended May 31, 2003. For the year ended May 31, 2004, the Company recorded a net loss of $5,989,000 or $0.11 per share compared to a net loss of $4,194,000 or $0.11 per share for the year ended May 31, 2003. As stated above, these results of operations were mainly attributable to the Company's clinical development program and the increased business development activity required to support the program. The Company expects to incur a loss next year as it continues to invest in product research and development.

LIQUIDITY AND CAPITAL RESOURCES

Since inception, the Company has financed its operations from public and private sales of equity, the exercise of warrants and stock options, interest income on funds available for investment and government grants and tax credits.

As at May 31, 2004, the Company had cash and cash equivalents totaling $19,954,000 compared with $4,131,000 at the previous year-end. On June 26, 2003, the Company strengthened its cash position by raising gross proceeds of $7,648,000 (before share issuance costs

of $609,000) through a private placement of 8,997,632 common shares of the Company at $0.85 per share.

In addition, Company received proceeds of $14,578,000 from the exercise of warrants and agents' compensation units that were to expire on December 20, 2003. The warrants were part of a public offering in December 2001. These funds are committed to short-term investments and as a result management does not believe that the fair value of these investments would be adversely impacted to any significant degree by a fluctuation in market interest rates. The total number of common shares issued and outstanding at May 31, 2004 was 66,646,660 as compared to 38,509,864 at May 31, 2003.

COMMITMENTS

The Company's wholly-owned subsidiary, Medicure International Inc. has ongoing research and development agreements with third parties in the ordinary course of business. The agreements include the research and development of MC-1 and its related compounds. Medicure International Inc. may terminate these agreements at any time provided thirty (30) days notice is provided. During the year ended May 31, 2004, the Company incurred an aggregate of $3,953,118 (2003 - $3,058,946) in expenditures under these agreements which is included in research and development expenses in the statement of operations. Expenditures incurred from inception of the agreements to May 31, 2004 total $12,397,619. As at May 31, 2004, the Company is committed to fund a further $7,826,587 of research and development expenditures under these agreements. Subsequent to May 31, 2004, Medicure International Inc. entered into a similar development agreement with another third party up to a maximum of direct research and development expenditures of $5,000,000.

The Company periodically enters into research agreements with third parties that include indemnification provisions customary in the industry. These guarantees generally require the Company to compensate the other party for certain damages and costs incurred as a result of claims arising from research and development activities undertaken on behalf of the Company. In some cases, the maximum potential amount of future payments that could be required under these indemnification provisions could be unlimited. These indemnification provisions generally survive termination of the underlying agreement. The nature of the indemnification obligations prevents the Company from making a reasonable estimate of the maximum potential amount it could be required to pay. Historically, the Company has not made any indemnification payments under such agreements and no amount has been accrued in the accompanying financial statements with respect to these indemnification obligations.

OFF-BALANCE SHEET ARRANGEMENTS

The Company does not have any off-balance sheet arrangements.

FINANCIAL INSTRUMENTS

The fair values of cash and cash equivalents, accounts receivable, research advance and accounts payable and accrued liabilities approximate their carrying values due to their short term to maturity. The Company has entered into no futures or forward contracts at May 31, 2004.

RELATED PARTY TRANSACTIONS

During the year ended May 31, 2004, the Company paid companies controlled by a director, a total of $228,794 (2003 - $193,485) for office rent and supplies and consulting fees.

These transactions are measured at the exchange amount which is the amount of consideration established and agreed to by the related parties.

OUTLOOK

The Company expects to continue to incur operating losses as it expands its clinical and drug discovery programs. The Company expects higher clinical expenses as a result of the MEND-CABG Phase II/III clinical trial with its lead product, MC-1 and the clinical trial activity for its second product MC-4232 for treatment in hypertension in fiscal 2005. Based on current plans, it is anticipated that total expenses will increase significantly during fiscal 2005 as a result of these clinical trials. The Company believes it has sufficient resources to fund operations into the second quarter of fiscal 2006. However, funding requirements may vary depending on a number of factors including the progress of the Company's research and development programs, the results of preclincal studies and clinical trials and changes in the focus and direction of the Company's product development projects.

The Company's strategic focus will be to move closer to regulatory approval for its lead product, MC-1 and its second product MC-4232, and identify and develop several new drug candidates from the drug discovery group. In order to achieve these objectives, the Company may pursue alliances with healthcare companies that will provide research and development funding. The Company may consider raising additional capital during fiscal 2005 to fund operations over the long-term.

RISKS AND UNCERTAINTY

The Company's products and technologies are currently in the research and development stages. The Company does not and may never have a commercially viable drug formulation approved for marketing. To obtain regulatory approvals for the Company's products and to achieve commercial success, human clinical trials must demonstrate that the products are safe for human use and that they show efficacy. Unsatisfactory results obtained from a particular study relating to one or more of the Company's products may cause the Company to reduce or abandon its commitment to that program.

The Company has not to date generated any revenues from sales. The timing of generation of any sales is uncertain. The Company's business, financial condition and results of operations will depend on its ability to obtain additional financing which may not be available under favorable terms, if at all. The ability of the Company to arrange such financing in the future will depend in part upon the prevailing capital market conditions as well as the business performance of the Company. If the Company's capital resources are exhausted and adequate funds are not available, it may have to reduce substantially or eliminate expenditures for research and development, testing, production and marketing of its proposed products, or obtain funds through arrangements with corporate partners that require the Company to relinquish rights to certain of its technologies or products.

This "Management's Discussion and Analysis of Financial Condition and Operations" contains forward-looking statements which may not be based on historical fact, including without limitation statements containing the words "believes," "may," "plan," "will," "estimate," "continue," "anticipates," "intends," "expects," and similar expressions. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, events or developments to be materially different from any future results, events or developments expressed or implied by such forward-looking statements. Such factors include, among others, the Company's stage of development, lack of product revenues, additional capital requirements, risks associated with the completion of clinical trials and obtaining regulatory approval to market the Company's products, the ability to protect its intellectual property and dependence on collaborative partners. These factors should be considered carefully and readers are cautioned not to place undue reliance on such forward-looking statements. The forward-looking statements are made as of the date hereof, and the Company disclaims any intention and has no obligation or responsibility except as required by law, to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

"Our listing in February on the American Stock Exchange has helped us make substantial inroads into the US marketplace. Medicure has received an excellent response from the US investment community to date. We will continue our aggressive approach throughout the coming year to increase our visibility with the institutional and retail investors, and analysts alike in the world's largest financial marketplace."

— Derek Reimer, CA
Chief Financial Officer

MEDICURE LISTS ITS COMMON SHARES
ON AMERICAN STOCK EXCHANGE

FEBRUARY 17, 2004 WAS A LANDMARK DAY IN THE HISTORY OF MEDICURE. AT 9:30 AM EST, PRESIDENT & CEO, DR. ALBERT D. FRIESEN RANG THE CEREMONIAL "OPENING BELL" AT THE AMERICAN STOCK EXCHANGE® (AMEX®), MARKING NOT ONLY THE START OF THE DAY'S TRADING, BUT THE MILESTONE LISTING OF MEDICURE ON THE EXCHANGE UNDER THE SYMBOL MCU (TSX:MPH).

Speaking at the opening ceremonies, Dr. Friesen stated: "The listing of Medicure's common shares on Amex is an important milestone for us as we introduce the Company to the US marketplace. It provides a second major trading market for our stock, increases market awareness for our shareholders and makes the Company significantly more accessible to our US investors."

Following the opening ceremonies and media interviews, Medicure hosted a luncheon presentation at the Waldorf=Astoria Hotel for 100 people from the New York financial and business communities. The event featured presentations on our Company and our cardiovascular products by Dr. Friesen and Dr. James Tcheng of the Duke Clinical Research Institute in Durham, North Carolina.

The American Stock Exchange is one of the largest options exchanges in the US and is the only primary exchange that offers trading across a full range of equities, options and exchange traded funds (ETFs), including structured products and HOLDRSsm.

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

The accompanying consolidated financial statements of Medicure Inc. and other financial information contained in this annual report are the responsibility of Management. The consolidated financial statements have been prepared in conformity with Canadian generally accepted accounting principles, using Management's best estimates and judgment, where appropriate. In the opinion of Management, these consolidated financial statements reflect fairly the financial position and the results of operations and cash flows of the Company within reasonable limits of materiality. The financial information contained elsewhere in this annual report has been reviewed to ensure consistency with that in the consolidated financial statements. The integrity and objectivity of data in the financial statements and elsewhere in this annual report are the responsibility of Management.

In fulfilling its responsibilities for the integrity of the data presented and to safeguard the Company's assets, Management employs a system of internal accounting controls designed to provide reasonable assurance, at appropriate cost, that the Company's assets are protected and that transactions are appropriately authorized, recorded, and summarized. This system of internal control is supported by the selection of qualified personnel, by organizational assignments that provide appropriate delegation of authority and division of responsibilities, and by the dissemination of written policies and procedures.

The Board of Directors is responsible for ensuring that Management fulfills its responsibilities for financial reporting and internal controls. The Board carries out this responsibility principally through its independent Audit and Finance Committee, which comprises unrelated and outside directors. The Audit and Finance Committee meets regularly during the year to review significant accounting and auditing matters with Management and the independent auditors and to review the interim and annual consolidated financial statements of the Company.

The consolidated financial statements have been audited by the Company's independent auditors, KPMG LLP Chartered Accountants, which has full and unrestricted access to the Audit and Finance Committee. KPMG's report on the consolidated financial statements is presented herein.

Derek G. Reimer, CA
Chief Financial Officer

Albert D. Friesen, PhD
President & Chief Executive Officer

AUDITORS' REPORT

To the Shareholders of Medicure Inc.

We have audited the consolidated balance sheets of Medicure Inc. as at May 31, 2004 and 2003 and the consolidated statements of operations and deficit and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of the Company as at May 31, 2004 and 2003 and the results of its operations and its cash flows for the years then ended in accordance with Canadian generally accepted accounting principles.

"KPMG LLP"
(Signed)

Chartered Accountants
Winnipeg, Canada
July 22, 2004

CONSOLIDATED BALANCE SHEETS

(EXPRESSED IN CANADIAN DOLLARS)

MAY 31, 2004 AND 2003

	2004	2003
ASSETS		
Current assets:		
Cash and cash equivalents	$ 19,954,386	$ 4,130,456
Accounts receivable	278,097	79,544
Research advance *(note 6)*	200,000	200,000
Prepaid expenses	910,337	55,048
	21,342,820	4,465,048
Property and equipment *(note 3)*	66,202	67,497
Patent costs, net of accumulated amortization of $71,981 (2003 - $54,002)	976,690	763,464
	$ 22,385,712	$ 5,296,009
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	$ 817,575	$ 353,908
Shareholders' equity:		
Capital stock *(note 4)*:		
Authorized:		
Unlimited number of common voting shares		
Unlimited number of class A common voting shares		
Unlimited number of preferred shares		
Issued:		
66,646,660 common voting shares (2003 - 38,509,864)	39,731,296	17,502,222
Contributed surplus *(note 4(c))*	491,423	105,375
Deficit accumulated during the development stage	(18,654,582)	(12,665,496)
	21,568,137	4,942,101
Nature of operations *(note 1)*		
Commitments and contingency *(note 6)*		
	$ 22,385,712	$ 5,296,009

On behalf of the Board:

Director

Director

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

CONSOLIDATED STATEMENTS OF OPERATIONS AND DEFICIT

(EXPRESSED IN CANADIAN DOLLARS)

YEARS ENDED MAY 31, 2004 AND 2003

	2004	2003
REVENUE:		
Interest and other income	$ 445,461	$ 241,281
EXPENSES:		
General and administrative	2,114,875	1,284,225
Research and development *(note 6)*	4,278,667	3,117,619
Amortization	41,005	33,125
	6,434,547	4,434,969
Loss for the year	(5,989,086)	(4,193,688)
Deficit accumulated during the development stage, beginning of year	(12,665,496)	(8,471,808)
Deficit accumulated during the development stage, end of year	$ (18,654,582)	$ (12,665,496)
Basic and diluted loss per share	$ (0.11)	$ (0.11)
Weighted average number of common shares used in computing basic and diluted loss per share	55,738,716	37,118,889

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(EXPRESSED IN CANADIAN DOLLARS)

YEARS ENDED MAY 31, 2004 AND 2003

	2004	2003
Cash provided by (used in):		
OPERATING ACTIVITIES:		
Loss for the year	$ (5,989,086)	$ (4,193,688)
Adjustments for:		
Amortization of property and equipment	23,026	22,270
Amortization of patent costs	17,979	10,855
Stock-based compensation	386,048	105,375
Change in the following:		
Accounts receivable	(198,553)	72,881
Prepaid expenses	(855,289)	34,827
Accounts payable and accrued liabilities	463,667	(35,755)
	(6,152,208)	(3,983,235)
INVESTING ACTIVITIES:		
Acquisition of property and equipment	(21,731)	(5,196)
Patent costs	(231,205)	(265,417)
	(252,936)	(270,613)
FINANCING ACTIVITIES:		
Issuance of common shares, net of share issue costs	22,229,074	43,286
Increase (decrease) in cash and cash equivalents	15,823,930	(4,210,562)
Cash and cash equivalents, beginning of year	4,130,456	8,341,018
Cash and cash equivalents, end of year	$ 19,954,386	$ 4,130,456

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(EXPRESSED IN CANADIAN DOLLARS)

YEARS ENDED MAY 31, 2004 AND 2003

1. NATURE OF OPERATIONS:

The Company is engaged in the discovery and development of cardiovascular therapeutics and is currently in the research and development phase of its lead product, MC-1. To date, the Company has no products currently in commercial production or use. Accordingly, the Company is considered to be a development stage enterprise for accounting purposes. Since September 15, 1997, the date of inception of the Company through to May 31, 2004, the Company has expended approximately $13,827,000 net of government assistance and investment tax credits, which aggregate approximately $450,000, on the research and development of MC-1 and other compounds.

To date, the Company has financed its cash requirements primarily through share issuances, investment tax credits, government grants and interest income. The success of the Company is dependent on its ability to obtain sufficient funds to conduct its clinical trials and to successfully commercialize its products.

2. SIGNIFICANT ACCOUNTING POLICIES:

(a) Basis of presentation:

These consolidated financial statements have been prepared in accordance with accounting principles generally accepted in Canada ("Canadian GAAP"). The measurement principles applied are also in conformity, in all material respects, with accounting principles generally accepted in the United States of America ("U.S. GAAP") except as described in note 9 to the consolidated financial statements.

These financial statements have been prepared on a consolidated basis to include the accounts of the Company and its wholly-owned subsidiary, Medicure International Inc. All significant inter-company transactions and balances have been eliminated.

(b) Cash and cash equivalents:

Cash and cash equivalents include cash on hand and balances with banks as well as highly liquid short-term investments. The Company considers all highly liquid short-term investments with terms to maturity when acquired of three months or less to be cash equivalents.

(c) Property and equipment:

Property and equipment are stated at cost. Amortization is recorded over the estimated useful life of the assets at the following rates:

ASSET	BASIS	RATE
Computer equipment	Straight-line	25%
Office equipment	Diminishing balance	20%
Scientific equipment	Diminishing balance	20%
Leasehold improvements	Straight-line	20%

(d) Patents:

Costs incurred in obtaining patents are capitalized and amortized upon issuance on a straight-line basis over the remaining legal life of the respective patents, being approximately twenty years, or their economic life, if shorter. The cost of servicing the Company's patents is expensed as incurred.

2. SIGNIFICANT ACCOUNTING POLICIES *(cont'd):*

(e) Impairment of long-lived assets:

On a regular basis, management reviews the valuation of long-lived assets, which includes property and equipment, and patent costs, taking into consideration any events and circumstances which may impact recoverable value. Section 3063 of the CICA handbook, *Impairment and Long-Lived Assets,* effective for fiscal 2004, prescribes revised and more rigorous principles for the recognition, measurement and disclosure of any impairment of long-lived assets. Management has reviewed the carrying value of the long-lived assets using this amended guidance and determined no impairment currently exists.

(f) Stock-based compensation:

The Company has a stock option plan [note 4(c)] for its directors, management, consultants and employees. During fiscal 2004, the Company adopted the new recommendations of the CICA Handbook Section 3870, *Stock-based Compensation and Other Stock-based Payments* for awards granted under its stock option plan to directors, management and employees, effective June 1, 2003. The Company had previously adopted the recommendations, as required, for awards granted under its stock option plan to non-employees effective June 1, 2002.

This standard and the amendments require that the fair value method of accounting for stock-based compensation is used to account for all awards of stock or stock options and compensation cost is recognized over the vesting period of the options. The fair value of direct awards is determined based on the quoted market price of the Company's common shares and the fair value of stock options and other stock-based payments is determined using the Black-Scholes option pricing model. For stock options granted to June 1, 2003, no compensation expense was recognized for the stock option plan when stock or stock options were issued to employees, management and directors. There were no stock options issued to employees, management and directors during fiscal 2003. As permitted, the Company has applied this change prospectively, accordingly, results from prior years have not been restated.

For the year ended May 31, 2004, the adoption of this new recommendation resulted in an increase in the loss for the year of $181,603 and an offsetting increase to contributed surplus due to the recognition of the fair value of options granted to employees, from that which would have been otherwise recognized.

(g) Government assistance and investment tax credits:

Government assistance toward current expenses is recorded as a reduction against the related expenses in the period they are incurred. Government assistance towards capital assets is deducted from the cost of the related capital asset.
The benefits of investment tax credits for scientific research and development expenditures are recognized in the period the qualifying expenditure is made, providing there is reasonable assurance of recoverability. Investment tax credits receivable are recorded at their net realizable value net of any reasonably possible adjustments by Canadian tax authorities.

Investment tax credits are only available on research and development expenditures incurred directly by the Company.

(h) Research and development:

All costs of research activities are expensed in the period in which they are incurred. Development costs are charged as an expense in the period incurred unless a development project meets stringent criteria for cost deferral and amortization. No development costs have been deferred to date.

(i) Income taxes:

The Company follows the asset and liability method of accounting for income taxes. Under this method, future income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Future income tax assets and liabilities are measured using enacted or substantively enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on future tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the date of substantive enactment. When realization of future income tax assets does not meet the more likely than not criterion, a valuation allowance is provided for the difference.

2. SIGNIFICANT ACCOUNTING POLICIES *(cont'd):*

(j) Net earnings (loss) per share:

Basic earnings (loss) per share is computed using the weighted average number of shares outstanding during the year including contingently issuable shares where the contingency has been resolved. The diluted per share amounts are calculated based on the weighted average number of common shares outstanding during the period, plus the effect of dilutive common share equivalents such as options and warrants. This method requires that diluted per share amounts be calculated using the treasury stock method, as if all the common share equivalents where the average market price for the period exceeds the exercise price had been exercised at the beginning of the reporting period, or at the date of issue, if later, as the case may be, and that the funds obtained thereby were used to purchase common shares of the Company at the average trading price of the common shares during the period. Certain of the Company's outstanding escrowed shares were considered to be contingently issuable and had been excluded from the denominator used in the calculation of earnings (loss) per share. During fiscal 2003, the Company had met the required performance conditions on the remaining 1,825,532 escrowed shares which had been included in the calculation of earnings (loss) per share from the date the performance conditions were met.

(k) Foreign currency translation:

Current assets and current liabilities in foreign currencies have been translated into Canadian dollars at the rates of exchange in effect at the balance sheet date. Income and expense transactions are translated at actual rates of exchange during the year. Exchange gains and losses are included in loss for the year.

(l) Use of estimates:

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the year. Actual results could differ from those estimates.

3. PROPERTY AND EQUIPMENT:

May 31, 2004	COST	ACCUMULATED AMORTIZATION	NET BOOK VALUE
Computer equipment	$ 60,924	$ 40,045	$ 20,879
Office equipment	13,415	4,664	8,751
Scientific equipment	63,822	39,092	24,730
Leasehold improvements	18,693	6,851	11,842
	$ 156,854	$ 90,652	$ 66,202

May 31, 2003	COST	ACCUMULATED AMORTIZATION	NET BOOK VALUE
Computer equipment	$ 45,767	$ 27,465	$ 18,302
Office equipment	9,817	3,265	6,552
Scientific equipment	63,822	33,375	30,447
Leasehold improvements	15,718	3,522	12,196
	$ 135,124	$ 67,627	$ 67,497

4. CAPITAL STOCK:

(a) Authorized:

The Company has authorized share capital of an unlimited number of common voting shares, an unlimited number of class A common shares and an unlimited number of preferred shares. The preferred shares may be issued in one or more series, and the directors may fix prior to each series issued, the designation, rights, privileges, restrictions and conditions attached to each series of preferred shares.

4. CAPITAL STOCK *(cont'd):*

As of March 1, 2003, all of the issued and outstanding class A common shares – totaling 1,280,000 shares – were converted into common shares of the Company on the basis of one common share for each class A common share in accordance with the Company's Articles of Continuance. The class A common voting shares were identical in all respects to the common voting shares, except that the holders were eligible for the Manitoba Equity Tax Credit until February 28, 2003.

(b) Shares issued and outstanding are as follows:

	NUMBER OF SHARES	AMOUNT
Common shares:		
Balance at May 31, 2002	37,088,864	$ 16,079,309
Exercise of options for cash	126,000	25,200
Refund of portion of share issue costs	–	5,936
Exercise of warrants for cash	15,000	12,150
Conversion of class A common shares	1,280,000	1,379,627
Balance at May 31, 2003	38,509,864	17,502,222
Private placement for cash on June 26, 2003 net of share issue costs of $608,960	8,997,632	7,039,408
Exercise of warrants for cash	18,464,164	14,692,251
Exercise of options for cash	675,000	497,415
Balance at May 31, 2004	66,646,660	$ 39,731,296

(c) Options:

The Company has a stock option plan which is administered by the Board of Directors of the Company with stock options granted to directors, management, employees and consultants as a form of compensation. The number of common shares reserved for issuance of stock options is limited to a maximum of 4,700,000 common shares of the Company at any time. The stock options are subject to vesting over a period up to three years.

A summary of the Company's stock option plan is as follows:

	2004		2003	
	SHARES	WEIGHTED AVERAGE EXERCISE PRICE	SHARES	WEIGHTED AVERAGE EXERCISE PRICE
Balance, beginning of year	2,137,033	$ 0.85	1,973,033	$ 1.05
Granted	935,000	1.44	505,000	0.74
Exercised	(675,000)	0.74	(126,000)	0.20
Cancelled or expired	(90,000)	1.18	(215,000)	2.33
Balance, end of year	2,307,033	$ 1.11	2,137,033	$ 0.85
Options exercisable, end of year	1,327,032		1,690,700	

Options outstanding at May 31, 2004 consist of the following:

Range of exercise prices	Number outstanding	Weighted average remaining contractual life	Options outstanding weighted average exercise price	Number exercisable
$ 0.65 - 1.65	2,097,033	2.7 years	$ 1.01	1,117,032
1.96 - 2.45	210,000	2.7 years	2.10	210,000
	2,307,033	2.7 years	$ 1.11	1,327,032

4. CAPITAL STOCK *(cont'd):*

The compensation expense related to stock options granted under the stock option plan during fiscal 2004 aggregated $386,048 (2003 - $105,375). The compensation expense was determined based on the fair value of the options at the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

	2004	2003
Expected option life	5 years	5 years
Risk-free interest rate	3.89%	4.81%
Dividend yield	–	–
Expected volatility	77.30%	81.18%

The cost of stock-based payments that are fully vested and non-forfeitable at the grant date is measured and recognized at that date. For awards that vest at the end of the vesting period, compensation cost is recognized on a straight-line basis over the vesting period. For awards that vest on a graded basis, compensation cost is recognized on a pro rata basis over the vesting period.

(d) Warrants:

ISSUEE (EXPIRY DATE)	ORIGINAL GRANTED	EXERCISED PRICE PER SHARE	MAY 31, 2002	GRANTED (EXERCISED) (CANCELLED)*	MAY 31, 2003	GRANTED (EXERCISED) (CANCELLED)*	MAY 31, 2004
18,461,537 warrants (December 20, 2003)	18,461,537	$ 0.65 - 0.81	18,461,537	(15,000)	18,446,537	(18,336,733) (109,804)*	–
Private placements: 1,360,000 units (August 31, 2002)	1,360,000	1.05 - 1.15	1,360,000	(1,360,000)*	–	–	–
120,000 units (September 14, 2002)	120,000	1.00 - 1.15	120,000	(120,000)*	–	–	–
629,834 units (June 26, 2005)	629,834	1.00	–	–	–	629,834 (127,431)	502,403

The warrants were all issued together with common shares either under prospectus offerings or private placements with the fair value of the consideration received under the offerings allocated to the common shares issued.

(e) Escrowed shares:

As at May 31, 2004, the Company's transfer agent held 5,670,236 (2003 - 7,606,404) common shares pursuant to a performance escrow agreement, on which the Company has met all required performance conditions. Subsequent to May 31, 2004, the transfer agent released an additional 1,659,790 common shares pursuant to the performance escrow agreement.

5. INCOME TAXES:

Significant components of the Company's future tax assets and liabilities are as follows:

	2004	2003
Future tax assets:		
Research and development expenses deductible in future periods for income tax purposes	$ 197,000	$ 226,000
Investment tax credits	76,000	76,000
Share issue costs	394,000	370,000
Operating losses carried forward	2,240,000	1,773,000
Other	93,000	102,000
	3,000,000	2,547,000
Less valuation allowance	(3,000,000)	(2,547,000)
	$ –	$ –

The reconciliation of the Canadian statutory rate to the income tax provision is as follows:

	YEAR ENDED MAY 31, 2004	YEAR ENDED MAY 31, 2003
Loss for the year:		
Canadian	$ 1,633,921	$ 991,657
Foreign	4,355,165	3,202,031
	$ 5,989,086	$ 4,193,688
Canadian federal and provincial income taxes recovery at 37.1% (2003 - 42.6%)	$ 2,223,000	$ 1,787,000
Foreign tax rate differential	(1,508,000)	(1,285,000)
Permanent differences	(150,000)	(47,000)
Change in statutory rates	(284,000)	(40,000)
Valuation allowance	(281,000)	(415,000)
	$ –	$ –

At May 31, 2004, the Company has Canadian and foreign unutilized operating losses carried forward for income tax purposes of $5,158,000 and $13,022,000 respectively. These losses are available to be applied against taxable income of future years up to fiscal 2013.

6. COMMITMENTS AND CONTINGENCY:

(a) Medicure International Inc. has ongoing research and development agreements with third parties in the ordinary course of business. The agreements include the research and development of MC-1 and its related compounds. Medicure International Inc. may terminate these agreements at any time provided thirty (30) days notice is provided. During the year ended May 31, 2004, the Company incurred an aggregate of $3,953,118 (2003 - $3,058,946) in expenditures under these agreements which is included in research and development expenses in the statement of operations. Expenditures incurred from inception of the agreements to May 31, 2004 total $12,397,619. As at May 31, 2004, the Company is committed to fund a further $7,826,587 of research and development expenditures under these agreements. Subsequent to May 31, 2004, Medicure International Inc. entered into a similar development agreement with another third party up to a maximum of direct research and development expenditures of $5,000,000.

As at May 31, 2004, the Company has provided a research advance of $200,000 (2003 - $200,000) to one of the third parties disclosed above, which is non-interest bearing, unsecured and repayable on demand.

6. COMMITMENTS AND CONTINGENCY *(cont'd):*

The Company periodically enters into research agreements with third parties that include indemnification provisions customary in the industry. These guarantees generally require the Company to compensate the other party for certain damages and costs incurred as a result of claims arising from research and development activities undertaken on behalf of the Company. In some cases, the maximum potential amount of future payments that could be required under these indemnification provisions could be unlimited. These indemnification provisions generally survive termination of the underlying agreement. The nature of the indemnification obligations prevents the Company from making a reasonable estimate of the maximum potential amount it could be required to pay. Historically, the Company has not made any indemnification payments under such agreements and no amount has been accrued in the accompanying financial statements with respect to these indemnification obligations.

(b) The Company leases its premises under an operating lease. Minimum annual rental payments to the end of the lease term are as follows:

2005	$	23,507
2006		23,507
2007		17,630
	$	64,644

The annual lease payments are exclusive of maintenance, property taxes, insurance and other operating costs.

7. RELATED PARTY TRANSACTIONS:

During the year ended May 31, 2004, the Company paid companies controlled by a director, a total of $228,794 (2003 - $193,485) for office rent and supplies and consulting fees.

These transactions are measured at the exchange amount which is the amount of consideration established and agreed to by the related parties.

8. FINANCIAL INSTRUMENTS:

The fair values of cash and cash equivalents, accounts receivable, research advance and accounts payable and accrued liabilities approximate their carrying values due to their short term to maturity.

9. RECONCILIATION OF GENERALLY ACCEPTED ACCOUNTING PRINCIPLES:

The Company prepares its consolidated financial statements in accordance with Canadian GAAP which, as applied in these consolidated financial statements, conform in all material respects to U.S. GAAP, except as follows:

(a) Patents:

Under Canadian GAAP, the patent costs which relate to products which are subject to research and development activities and have not yet received regulatory approval are included as an asset on the balance sheet. Under U.S. GAAP, the patent costs would have been recorded as a component of research and development expense in the year of incurrence. The effect of this difference is that for the years ended May 31, 2004 and 2003, research and development expense would have increased by $231,205 and $265,417, respectively. The Company commenced amortization of the patents during fiscal 2002. Under U.S. GAAP, the amortization expense to be added back is $17,979 for the year ended May 31, 2004 (2003 - $10,855).

(b) Scientific equipment:

Scientific equipment acquired solely for research and development activities has been capitalized and amortized over its useful life for Canadian GAAP purposes. Under U.S. GAAP, this equipment would be charged to research and development expense as incurred as it does not have alternative future use. There were no additions to scientific equipment during the years ended May 31, 2004 and 2003. Amortization of the scientific equipment for Canadian GAAP would be added back to the loss for the period for U.S. GAAP reconciliation purposes. The amortization to be added back for the years ended May 31, 2004 and 2003 is $5,715 and $7,037, respectively.

9. RECONCILIATION OF GENERALLY ACCEPTED ACCOUNTING PRINCIPLES *(cont'd):*

(c) Stock options – stock-based compensation costs:

For reconciliation purposes to U.S. GAAP, the Company has elected to follow the fair value method in accounting for its employee, management and director stock options. Under U.S. GAAP, stock-based compensation to non-employees must be recorded at fair value of the options granted. For stock-based compensation granted to non-employees subsequent to June 1, 2002 and to employees, directors and management subsequent to June 1, 2003, the accounting is consistent under both Canadian GAAP and U.S. GAAP.

The Company uses the Black-Scholes option pricing model to determine the fair value of all options granted. The assumptions used in the valuation included a five year life for the options, a risk-free rate of between 3.50% and 5.80%, volatility between 37% and 87% and no dividend yield. This compensation expense would be amortized over the appropriate vesting periods. For purposes of reconciliation of U.S. GAAP, the Company would record an additional compensation expense for the years ended May 31, 2004 and 2003 of approximately $25,588 and $129,900, respectively.

(d) Escrowed common shares:

Under Canadian GAAP, common shares of the Company under escrow arrangements are included in capital stock at the time of issuance based on the total number of shares issued and the issuance price. No additional compensation expense is recorded when the common shares are released from escrow. Under U.S. GAAP, the common shares of the Company that were previously held in escrow on a time release basis are accounted for in the same manner as under Canadian GAAP. A compensation expense however, would be recorded under U.S. GAAP, upon eligibility for release of the escrowed common shares of the Company, where the release is based on performance conditions being met. The compensation expense would be accounted for as the difference between the market value of the Company's common shares at the time the common shares are eligible for release from escrow and the price paid per common share at the time of issuance multiplied by the number of common shares released from escrow. To May 31, 2003, performance conditions on all of the common shares under escrow had been met with performance conditions on 1,825,537 of the common shares under escrow met during fiscal 2003. For purposes of reconciliation to U.S. GAAP, the Company would record an additional compensation expense for the years ended May 31, 2004 and 2003 of nil and $684,500, respectively.

(e) Recent accounting pronouncements:

In May 2003, the FASB issued SFAS No. 150, *Accounting for certain Financial Instruments with Characteristics of both Liabilities and Equity* ("SFAS No. 150"). SFAS No. 150 requires that certain financial instruments issued in the form of shares that are mandatorily redeemable as well as certain other financial instruments be classified as liabilities in the financial statements. SFAS No. 150 is effective for financial instruments entered into or modified after May 31, 2003.

The adoption of SFAS No. 150 did not and is not expected to have a material effect on the Company's consolidated financial statements.

In addition, the FASB and Emerging Issues Task Force ("EITF") have issued a variety of interpretations including the following interpretations with wide applicability:

- Financial Interpretation No. 46 ("FIN 46"), *Consolidation of Variable Interest Entities*, which addresses the consolidation of variable interest entities (formerly referred to as "Special-Purpose Entities"). The interpretation is generally in effect for interim or annual periods beginning after December 15, 2003.
- In November 2002, the EITF reached a consensus on Issue 00-21, *Revenue Arrangements with Multiple Deliverables* ("EITF 00-21"). This consensus addresses issues related to separating and allocating value to the individual elements of a single customer arrangement involving obligations regarding multiple products, services or rights which may be fulfilled at different points in time or over different periods of time. EITF 00-21 guidance is applicable for arrangements entered into in fiscal periods beginning after June 15, 2003.

To date, the adoption of FIN 46 and EITF 00-21 has not impacted the Company's consolidated financial statements.

9. RECONCILIATION OF GENERALLY ACCEPTED ACCOUNTING PRINCIPLES *(cont'd):*

Summary:

The impact of significant variations to U.S. GAAP on the consolidated statement of operations and deficit are as follows:

	YEAR ENDED MAY 31, 2004	YEAR ENDED MAY 31, 2003	CUMULATIVE FROM INCEPTION ON SEPTEMBER 15, 1997 TO MAY 31, 2004
Loss for the period, Canadian GAAP	$ (5,989,086)	$ (4,193,688)	$ (18,654,582)
Adjustments for the following:			
Stock-based compensation (c)	(25,588)	(129,900)	(1,195,488)
Patent costs (a)	(231,205)	(265,417)	(1,028,123)
Amortization of patent costs (a)	17,979	10,855	71,981
Scientific equipment (b)	–	–	(63,822)
Amortization of scientific equipment (b)	5,715	7,037	39,090
Escrowed common share compensation (d)	–	(684,500)	(15,061,500)
Loss for the period, U.S. GAAP	$ (6,222,185)	$ (5,255,613)	$ (35,892,444)
Basic and diluted loss per share, U.S. GAAP	$ (0.11)	$ (0.14)	

The impact of significant variations to U.S. GAAP on the consolidated statements of cash flows are as follows:

	YEAR ENDED MAY 31, 2004	YEAR ENDED MAY 31, 2003	CUMULATIVE FROM INCEPTION ON SEPTEMBER 15, 1997 TO MAY 31, 2004
Operating activities	$ (6,383,413)	$ (4,248,652)	$ (19,627,224)
Investing activities	(21,731)	(5,196)	634,034

The impact of significant variations to U.S. GAAP on the consolidated balance sheet items are as follows:

	2004	2003
Capital assets	$ 41,472	$ 37,050
Capital stock and contributed surplus	56,459,161	33,818,449
Deficit accumulated during the development stage	(35,892,444)	(29,670,259)

BOARD OF DIRECTORS & CORPORATE GOVERNANCE

IN AN ERA OF INCREASED ATTENTION LINKED TO CORPORATE GOVERNANCE, MEDICURE INC. IS COMMITTED TO THE HIGHEST STANDARDS, HAVING ADOPTED FORMAL GOVERNANCE PRACTICES IN COMPLIANCE WITH ALL REQUIREMENTS RELATING TO CORPORATE GOVERNANCE IMPOSED BY APPLICABLE CANADIAN REGULATORY AUTHORITIES AND THOSE OF THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION AND THE AMERICAN STOCK EXCHANGE. WE HAVE ADDRESSED ISSUES DEALING WITH THE RESPONSIBILITY OF OUR BOARD OF DIRECTORS AND ITS VARIOUS COMMITTEES, ALONG WITH THE OPERATION AND GOVERNANCE OF THE CORPORATION. WE HAVE ALSO PAID ATTENTION TO THE INDEPENDENCE OF THE BOARD FROM MANAGEMENT, THE ONGOING MONITORING OF THE BOARD'S AND MANAGEMENT'S PERFORMANCE AND COMPENSATION, THE RECRUITMENT OF NEW MEMBERS TO THE BOARD, AND THE APPOINTMENT AND MANDATE OF THE VARIOUS BOARD COMMITTEES.

BOARD OF DIRECTORS

- Albert D. Friesen, Ph.D – Chair
  President & CEO, Medicure Inc.
- William A Cochrane, MD, O.C.*#
  W. A. Cochrane & Associates, Calgary
- Gerald P. McDole, B.Sc., MBA*
  Retired President & CEO, AstraZeneca Canada, Toronto
- Arnold Naimark, MD, O.C., O.M.*†
  Director, Centre for the Advancement of Medicine, Winnipeg
- James Umlah*
  Chief Investment Officer, Crocus Investment Fund, Winnipeg

* Independent and unrelated to the Company & member of Audit and Financial Committee, the Executive Compensation and Corporate Governance Committee
† Chair, Executive Compensation and Corporate Governance Committee
# Chair, Audit and Finance Committee

SCIENTIFIC ADVISORY BOARD

Medicure's Scientific Advisory Board includes some of North America's leading medical and scientific experts in the field of cardiovascular disease. They are:

- Paul Armstrong, MD, Chair, University of Alberta
  Post Member, FDA, Cardio Renal Advisory Board
- Raymond Gibbons, MD, Mayo Clinic
- Stephen Hanessian, PhD, Univ. of Montreal
- Trevor Hassell, MD, Univ. of Barbados
- Morris Karmazyn, PhD, Univ. of Western Ontario
- John McNeill, PhD, Univ. of British Columbia
- Eldon Smith, MD, Univ. of Calgary
- Pierre Theroux, MD, Univ. of Montreal
- Jeffrey Weitz, MD, McMaster University

EXECUTIVE MANAGEMENT TEAM

Medicure Management Group: Seated: Dr. Albert D. Friesen and Dr. Deborah Douglas. Standing (L to R): Derek Reimer, Dr. Ahmad Khalil, Dr. Wasimul Haque, Don Bain, Moray Merchant, Dawson Reimer and Dr. K.G. Hidinger.

Albert D. Friesen, Ph.D. – President & CEO
Albert D. Friesen holds a Ph.D. in Protein Chemistry from the University of Manitoba. As the first full time employee and President of the Winnipeg Rh Institute he oversaw the development and initial pharmaceutical approval of WinRho. Dr. Friesen has also been instrumental in founding several health industry companies including Novopharm Biotech Inc. (now Viventia Biotech Inc.), Genesys Pharma Inc., and KAM Scientific Inc. Dr. Friesen's noteable achievements include the establishment of several GMP production facilities for the production of human pharmaceuticals. He has also managed and initiated the research and clinical development of numerous pharmaceutical candidates, including more than 15 INDs and 2 successful NDAs.

Naranjan S. Dhalla, Ph.D.
Chief Scientific Officer*
The principal inventor of Medicure's lead technology, Dr. Dhalla presently serves as Distinguished Professor and Director, Institute of Cardiovascular Sciences, St. Boniface General Hospital Research Centre, Faculty of Medicine, University of Manitoba. He is an internationally recognized cardiovascular researcher and recipient of approximately 60 honors and awards including: The Research Achievement Award of the Canadian Cardiovascular Society, the Medal of Honor from the Canadian Medical Association, The Upjohn Award of the Pharmacological Society of Canada, two Honorary Doctorates and Honorary Professorships at several universities.

K.G. Hidinger, Ph.D – Vice-President, Clinical Development*
Dr. Karl-Gunnar Hidinger received his Ph.D. in Clinical Pharmacology from the University of Gothenburg, Sweden. His drug development experience spans 30 years and includes basic pharmacology research and preclinical research through clinical Phase I, II, III, and market approval of new chemical entities. Dr. Hidinger's career has included clinical research positions in Europe and North America.

Moray Merchant, MBA – Vice-President, Market & Business Development
Mr. Merchant has 23 years' pharmaceutical sales, marketing and business development experience. Most recently he was Vice-President, Sales and Marketing for aaiPharma Inc., a U.S. based specialty pharmaceutical company. Prior to this, while working with DuPont Pharma in Canada, he managed the sales and marketing of their cardiovascular products and directed their business development initiatives. Mr. Merchant has an MBA from St. Joseph's University in Philadelphia.

Dawson J. Reimer, MAES – Vice-President, Operations
After serving as Business Development /Investor Relations with Genesys Pharma Inc. Mr. Reimer transitioned in 1997 to conducting business activities for Genesys Venture Inc., a biotech business incubator, where he assisted in developing business plans, obtaining financing and developing intellectual property protection. In this capacity, Mr. Reimer became actively involved in Medicure at its inception. He has a Master's Degree in Economic Development, University of Waterloo

Derek G. Reimer, CA – Chief Financial Officer
Mr. Reimer was formerly employed by Deloitte & Touche LLP where he served as a Senior Manager in the Assurance and Advisory Services group. In this role, he dealt mainly with major corporate clients, including several TSX 100 companies, providing advice regarding complex accounting, regulatory, and compliance issues. Mr. Reimer is a Chartered Accountant who also holds a Bachelor of Commerce (Hons.) degree in accounting from the University of Manitoba.

Wasimul Haque, Ph.D.
Director of Chemistry*
Dr. Haque has over 15 years experience in industrial biotechnology research and development where he has managed a variety of drug discovery projects. Senior positions held prior to joining Medicure include Project Manager at Alberta Research Council and Senior Scientist, Biomira Inc. Dr. Haque, who has a Ph.D. in Chemistry from the University of Manitoba, is the author of several peer-reviewed publications.

Ahmad Khalil, MD, Ph.D.
Director of Scientific Affairs
Dr. Khalil received his MD from the Medical Academy IP in Plovdiv, Bulgaria in 1986, and his M.Sc degree (1993) and PhD (1997) from The University of Montreal. He has excellent research experience in the areas of in vivo antithrombotic treatment and ischemia reperfusion, as well as therapeutic approaches to coronary artery bypass graft surgery, much of which was done during his tenure as researcher and lecturer at the renowned Montreal Heart Institute.

Deborah A. Douglas, Ph.D.
Director of Physiology*
Dr. Douglas received her Ph.D. in Animal Science from McGill University, focusing on molecular biology related research. Her post-doctoral experience involved cell biology research at the Institute of Cell Biology, University of Manitoba and the Jack Bell Research Centre, Vancouver General Hospital, University of British Columbia.

** Drs. Dhalla, Hidinger, Haque and Douglas provide their services through a consulting contract with CanAm Bioresearch Inc.*

SHAREHOLDER INFORMATION

AUDITORS

KPMG LLP
One Lombard Place
Winnipeg, MB R3B 0X3

TRANSFER AGENT

Computershare Investor Services Inc.
1190-201 Portage Avenue
Winnipeg, MB R3B 3K6

BANKERS

TD Canada Trust

CORPORATE COUNSEL

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SECURITIES COUNSEL

Lang Michener
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181 Bay Street, Suite 2500
Toronto, ON M5J 2T7

PATENT COUNSEL

Ridout & Maybee
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Toronto, ON M5C 3B1

Merchant & Gould
3200 IDS Centre,
80 South Eighth Street
Minneapolis, MN 55402-2215

INVESTOR RELATIONS & PUBLIC INQUIRIES

Don Bain
Director of Investor & Public Relations
Toll Free: 1-888-435-2220 (x237)
E-mail: dbain@medicureinc.com

STOCK LISTINGS

Medicure's shares are listed for trading on the Toronto Stock Exchange (TSX), under the symbol MPH, and on the American Stock Exchange (Amex) under the symbol MCU

SAFE HARBOR STATEMENT

This Annual Report to Shareholders contains forward-looking statements, which are made pursuant to the safe harbor provisions of the U.S. Securities Litigation Reform Act of 1995. Forward-looking statements involve known and unknown risks and uncertainties, which could cause the Company's actual results to differ materially from those in the forward-looking statements. Such risks and uncertainties include, but are not limited to, the availability of funds and resources to pursue R&D activities, the successful and timely completion of clinical studies, the ability of the Company to take advantage of business opportunities in its specific industry, uncertainties related to the regulatory process and general changes in economic conditions. Investors should consult the Company's ongoing filings with the Canadian and U.S. securities authorities for additional information on risks and uncertainties relating to forward-looking statements. Investors are cautioned not to rely on these forward-looking statements nor does the Company undertake to update these forward-looking statements.

2004 ANNUAL GENERAL MEETING OF SHAREHOLDERS

Monday, October 25, 2004
4:30 PM Eastern Time

Sheraton Suites
Calgary Eau Claire
255 Barclay Parade SW
Calgary, Alberta, Canada
T2P 5C2

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